I-405
CORRIDOR PROGRAM NEPA/SEPA DRAFT EIS

DRAFT LAND USE EXPERTISE REPORT

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I-405 CORRIDOR PROGRAM
Draft Land Use Expertise Report

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SUMMARY

Regionally, employment in the four-county Central Puget Sound region is forecast to increase by 25 percent, or 460,000 jobs. During the 20-year period, households are forecast to increase by almost 450,000. Each of the alternatives has the potential for changes in pressure for existing and forecasted regional growth in employment and household within the corridor. Substantial changes in land use, both in the study area and the region, are expected to take place with or without the I-405 Improvements Project.

As discussed in the *I-405 Corridor Program Draft Land Use Plans and Policies Expertise Report* (DEA, 2001), there are several regional policies and initiatives that will help to focus changes in land use around transportation infrastructures. Specifically, increased high-occupancy modes and transportation infrastructures that improve accessibility will move the land use pattern toward the regional goal of growth in the Urban Growth Area (UGA).

This report will demonstrate that when there is a change in pressures of forecasted growth in the 405 corridor, the designated urban centers can absorb that growth as increased density for both households and employment. It also demonstrates how growth can still encroach into the rural areas, under certain transportation improvement scenarios.

With the No Action Alternative, the growth for households expands beyond the UGA, which is not the objective of the Regional VISION 2020 and King and Snohomish Counties' Countywide Planning Policies. The I-405 project Action Alternatives 1-4 support, to varying degrees, the forecasted growth and reflects change in pressures in the UGA as proposed in regional and local plans. The employment and housing growth patterns would show a change in pressures for growth, based on the different action alternatives, in the transportation corridors of 167, I-405, I-90, and I-5; precipitating increased connectivity – a regional goal. Upon implementation of a preferred alternative, the designated urban centers within the study area could absorb the forecasted growth, depending on the focus of the growth. These Urban Centers in the I-405 study area are:

King County Urban Centers

- Federal Way
- Kent
- Tukwila
- Renton Downtown
- Renton Issaquah
- Bellevue Downtown
- Redmond Downtown

Snohomish County Urban Centers

- Canyon Park – Bothell
- Lynnwood

Changes over time in regional accessibility associated with each alternative would be considered secondary impacts, which will be evaluated at the project-level. The High-Capacity Transit (HCT) and Transportation Demand Management (TDM) elements within the alternatives will have a secondary impact on land uses, as the density and type of land use will transition to transit-supportive around the HCT hubs. The existing VISION 2020, Countywide Policies, City policies, and Sound Transit's commitment to transit-supportive land use near their facilities will influence these land uses.

The Puget Sound region has experienced tremendous growth in two large cycles**,** one in the 1960s and another in the 1980s and 1990s. The Puget Sound region is still growing in 2001, with annual growth rates projected at 1.1 to 2.0 percent out to 2030 (PSRC, 2001). Prior to the 1970s there was strong growth in the region with federal spending on aviation, expansion of military installations, import/export services, and related industrial goods. In the mid-1970s, the growth slowed and the Puget Sound region felt the "brakes" of the economy. In the mid-1980s, the region experienced a revival of the economy with the arrival of Microsoft and the "high-tech" industry, increased spending on military technology with Boeing, and an upturn in the national economy. While the growth rate was substantial in the 1960s, the current predominant Eastside land uses did not emerge until the 1980s when the area transitioned from rural/suburban, to suburban/urban with identifiable urban centers.

The Eastside (communities east of Lake Washington) began the Twentieth Century as a rural area. Development did not begin in earnest until after the completion of the first Lake Washington floating bridge across Mercer Island in 1940. The bridge dramatically decreased the time it took to travel between Seattle and the Eastside. During the next twenty years the previously rural Eastside was transformed into a major suburb of Seattle, with development focused in Bellevue and the other neighborhoods having easy access to U.S. 10 (now I-90). The second major phase in the contemporary development of the Eastside began when the second Lake Washington floating bridge was completed in 1963. The opening of SR 520 facilitated access and development in the 1970s and early 1980s of the northern and northeastern portions of the Eastside areas that had previously been difficult to access from Seattle. During the period the Eastside also became an important location for businesses and jobs, which increased 400 percent between 1960 and 1980.

The I-405 area experienced substantial growth in the 1980s, which has continued into the 1990s. The projections for the I-405 study area in population growth, assuming an annual growth rate in the range of 1.4 to 2.0 percent, increase from 687,300 in 2000 to 1,010,500 in 2020 and 1,116,300 by 2030.

The household growth in the study area is expected to continue with a greater proportion living in multi-family units in the urban centers. Assuming an annual growth rate in the range of 0.5 percent to 1.2 percent, the households would increase from 265,200 in 2000 to 369,300 in 2020 and 390,500 by 2030. On a broader eastside view, PSRC forecasts indicate a growth rate in 2000 at 1.7 percent and dropping to 0.7 percent in 2030 for single-family households. The growth rate for multi-family units is forecast to range from 3.6 percent in 2000 to 0.7 percent in 2020, rising back up to 1.7 percent by 2030.

As discussed previously, the I-405 corridor has transitioned from a rural/suburban community into an urban area, focusing the continued growth into the urban centers of Bellevue, Redmond, Tukwila, Kirkland, and Renton. At the same time, the transportation infrastructure of I-405, SR 520, I-90, and the associated east/west major arterials are at capacity during peak hours.

The land use pattern in the I-405 corridor has followed the regional patterns, with focused employment centers and low-density suburban expansion outside of the downtown cores of Bellevue, Redmond, and Kirkland. Large residential subdivisions served by major arterials have experienced growth, with a parallel growth in the downtown cores of the eastside cities.

Table S.1 summarizes impacts to land use. The I-405 project does not induce growth, but changes the pressures of the PSRC forecasted growth in the manner that regional and local policies call for by 2020.

Potential impacts are present under the No Action Alternative, and therefore the action alternatives could reduce overall impacts. The No Action Alternative shows where the change in pressures occurs, in regard to the PSRC forecast and modeling, by employment or household growth. Each action alternative would have less or equal impacts than the No Action Alternative. This is based on the assumption, which is supported by the modeling, that the I-405 action alternatives do not create growth. The change in pressures, by action alternatives, are summarized below:

The No Action Alternative will tend to disperse or move growth outwards toward south Snohomish County, east King County, northwest Pierce County.

Alternative 1 results in minimal job growth and a negligible movement of household growth out to the UGA fringes compared to the No Action Alternative. In general, Alternative 1 draws employment and housing into the Bothell, Eastgate, Factoria, Federal Way, Kent, Mill Creek, Redmond, Lynnwood, Bothell, and Kirkland.

Alternative 2 also results in decreases in households/population in outlying areas and increases the levels of employment/housing growth into Factoria, Canyon Park, Lynnwood, Redmond, Newcastle, Renton, and Kent. This alternative reflects a change in growth pressures compared to the No Action Alternative. This alternative would lead to increased traffic in the arterial network, due to expansion of capacity of some arterials.

Alternative 3 reflects residential growth both inside and outside of the I-405 corridor. Residential growth begins to move north and south into King County and Snohomish County. The employment patterns remain the same as Alternative 2, but changes growth pressures compared to the No Action Alternative. This alternative, due to capacity expansion on I-405, would shift some traffic back to I-405 from the arterials.

This alternative, which has the best Growth Management Act direction, has the tendency to concentrate employment and household growth, along the I-405 corridor; specifically, in the southern and northern portions of the I-405 study area. It also relieves some growth pressures on areas to the east and outside the UGA boundaries.

Alternative 4 has the greatest change in pressure in regard to some household growth outside the UGA. Additionally, Alternative 4 changes the growth pressure of household growth out of Seattle and into Southern King County (Renton, Kent, Auburn Valley Federal Way), the northern portion of the eastside (Redmond and Woodinville), and Southern Snohomish County (Canyon Park, Lynnwood, and the fringe of Mill Creek).

Table S.1: Summary of Potential Impacts to Land Use in the Study Area

Alternative	Direct Impacts
No Action	6 of the 54 projects with potential substantial impacts to land use
Alternative 1	49 of the 109 projects with potential localized substantial impacts to land use
Alternative 2	65 of the 162 projects with potential localized substantial impacts to land use
Alternative 3	57 of the 152 projects with potential localized substantial impacts to land use
Alternative 4	27 of the 116 projects with potential localized substantial impacts to land use

1. INTRODUCTION

1.1 Report Organization and Scope

The purpose of this report is to evaluate the potential impacts on land use of five alternative approaches to traffic and transportation-related improvements in the I-405 corridor. The analysis is at the corridor level and represents a programmatic, rather than project-level, assessment of impacts. The report addresses the potential impacts of each of the four proposed action alternatives as well as a No Action Alternative. Topics associated with land use guiding policies and overall planning are addressed in the *I-405 Corridor Program Draft Land Use Plans and Policies Expertise Report* (DEA, 2001).

1.2 Overview of I-405 Corridor Program

Construction of the 30-mile Interstate 405 (I-405) freeway in the early 1960s as a bypass around Seattle for Interstate 5 (I-5) traffic also opened the rural, agricultural countryside east of Lake Washington to commercial and residential development. Interstate 405 currently ranges from six to ten lanes along the 30-mile corridor, and it is the designated military route through Seattle, as Interstate 5 was deemed too constricted (see Figure 1.1). Construction of the Evergreen Point (SR 520) floating bridge in 1963 further set the stage for rapid and substantial changes on the Eastside.

Today, I-405 has changed dramatically from a Seattle bypass to become the region's dominant north-south travel corridor east of I-5. More than two-thirds of the total trips on I-405 begin and end in the corridor itself. The remaining third have strong ties with the communities along SR 167 to the south of the study area, and with developing areas to the east within the urban growth area of King County. However, as the regional importance of the I-405 corridor has grown, it has become increasingly evident that worsening traffic congestion within the corridor has the potential to create serious adverse effects on personal and freight mobility, the environment, the state and regional economy, and the quality of life.

In response to these and other concerns, the Washington State Department of Transportation (WSDOT) has joined with the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Central Puget Sound Regional Transit Authority (Sound Transit), King County, and local governments to develop strategies to reduce traffic congestion and improve mobility in the I-405 corridor from Tukwila in the south to Lynnwood in the north.

The I-405 Corridor Program is a cooperative effort involving over 30 agencies that have responsibilities for planning, regulating, and implementing transportation improvements in the 250+ square-mile corridor. The decision to be made through the combined National Environmental Policy Act/State Environmental Policy Act EIS process is to identify the best mix of modal solutions, transportation investments, and demand management to improve movement of people and goods throughout the I-405 corridor, reduce foreseeable traffic congestion, and satisfy the overall program purpose and need.

The programmatic I-405 Corridor Program EIS focuses on broad corridor-wide issues related to travel mode and transportation system performance. This is consistent with the program objective to enable program decisions focusing on mode choice, corridor selection, general location of improvements, and how combinations of improvements may function together as a system to solve corridor-wide transportation problems. A programmatic level of analysis is appropriate and necessary at this early stage in the decision-making process, when many project-level design details would not be meaningful in evaluating effects on mobility and environmental quality across such a large area. Subsequent environmental analysis, documentation, and review will be prepared to enable decisions regarding site-specific, project-level details on alignments, high-capacity transit technology, project impacts, costs, and mitigation measures after a preferred alternative has been identified.

1.3 Need For the Proposed Action

The need identified for the I-405 Corridor Program is:

> To improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The following sub-sections expand upon the issues and trends that influence the need for the proposed action, particularly with respect to travel demand and traffic congestion, and the attendant effects on freight mobility and safety.

1.3.1 Growth in Travel Demand

Between 1970 and 1990, communities in the I-405 corridor grew much faster than the central Puget Sound region as a whole. During the 20-year period, employment in the study area increased over 240 percent from 94,500 to 323,175 and population grew nearly 80 percent from 285,800 to 508,560.

Population and employment continued to grow during the 1990s; in particular, employment grew at an annual rate of almost 3.5 percent. Looking ahead, growth in the corridor through 2020 likely would keep pace with the robust rate of growth in the Puget Sound region. The I-405 corridor population and employment is forecast to increase by more than 35 percent. This means that by 2020 an additional 144,000 people are expected to be employed within the study area, while the population is expected to reach approximately 765,000, an increase of more than 200,000 people from 1997.

1.3.1.1 Travel Demand

Travel demand trends in the I-405 corridor match these population and employment trends: between 1995 and 2020, person trips are generally expected to increase more than 50 percent. Travel demand in terms of traffic volume is heaviest within the study area on I-405 itself, with the freeway carrying 60 to 70 percent of the total daily traffic volumes passing though the study area in the north-south direction. Conversely, the arterial streets carried 30 to 40 percent. In the east-west direction, the arterial street system plays an

important role, with volumes almost equally distributed between the arterial streets and the two east-west freeways, I-90 and SR 520. In 1999, the highest volumes on I-405 occurred in the vicinity of NE 8th Street in Bellevue: about 210,000 vehicles per day. I-405 at SR 900 in Renton typified traffic volumes on I-405 south of I-90, carrying about 138,000 vehicles per day.

WSDOT's most recent traffic count data (1999) show the lowest I-405 traffic volumes, 95,000 vehicles per day, in the north end between SR 522 and I-5 at Swamp Creek, and the highest, 210,000 vehicles per day, between I-90 and SR 520. The section south of Kirkland to SR 520 carries 185,000 to 195,000 vehicles per day, and the section south of I-90 typically carries 150,000 vehicles per day. Figure 1.2 shows these findings. This variation in traffic volumes is the result of different travel demands within the corridor as well as the available capacity on the freeway.

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Legend: Study Area

- Study Area Boundary
- Urban Growth Area
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.

SNOHOMISH

KING

Mill Creek
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Bothell
Kenmore
Woodinville
Shoreline
Lake Forest Park
Simonds Rd NE
Duvall
NE 128th St
Kirkland
Redmond
Lake Washington
Union Bay
Lake Union
Hunts Point
Yarrow Point
Clyde Hill
Medina
NE 8th St
Bellevue
148th Ave SE
Redmond Fall City Rd
Lake Sammamish
Seattle
Beaux Arts
Mercer Island
Sammamish
Duwamish River
Newcastle
Coal Creek Pky SE
Issaquah
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
Kent
132nd Ave SE
Des Moines
Covington
Auburn
Federal Way
Everett
Seattle
Tacoma

5 90 405 527 524 522 202 99 520 509 900 167 515 169 203 18 516

Study Area

Figure No. 1.1

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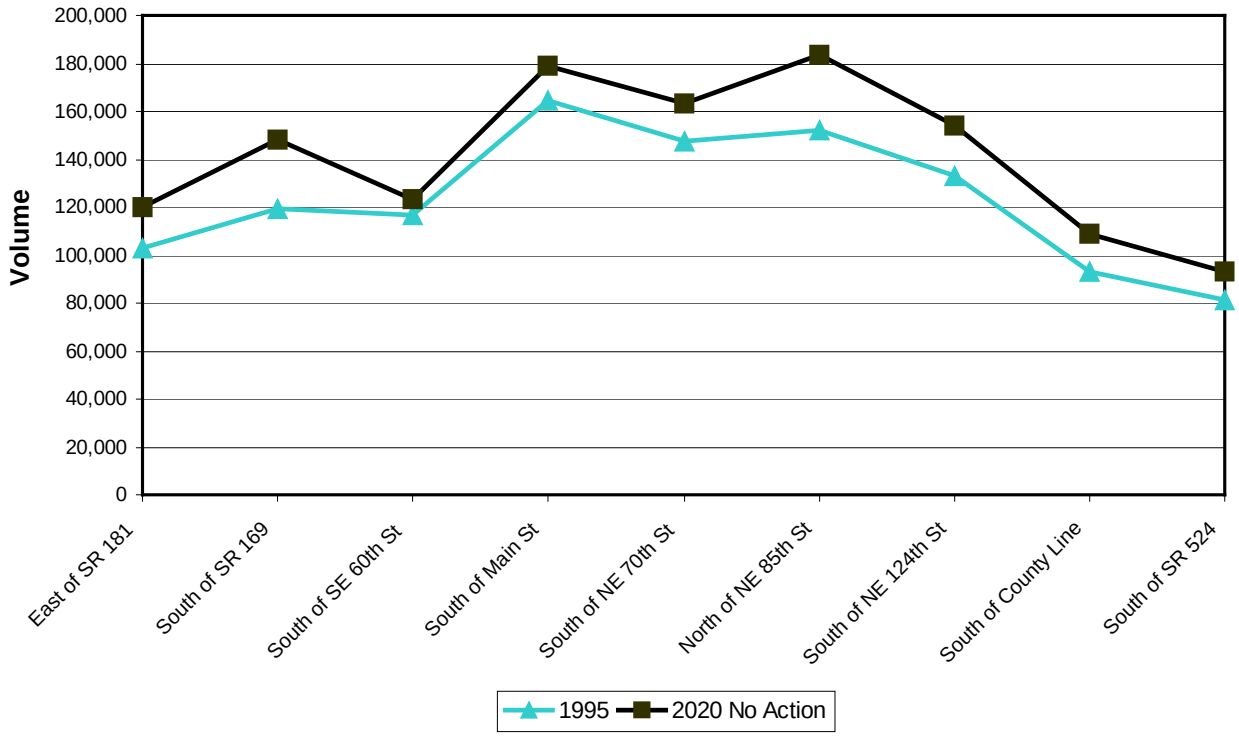
Figure 1.2: Daily Traffic Volumes at Selected Locations on I-405



Source: PSRC Model

1.3.1.2 Mode Split

Single-occupant vehicles (SOVs) generate the majority of traffic demand: up to 78 percent of work trips within the I-405 study area are SOVs. High-occupancy vehicles (HOVs) and transit users comprise around 20 percent of all work trips within the study area. SOV use in the study area is higher than the average for King County, while HOV and walk/bike percentages are lower. These results reflect the more suburban character of the I-405 study area.

The segment of I-405 with the highest peak-period transit ridership is between SR 520 and the Totem Lake area (2,100 riders). Transit ridership near each of the northern and southern termini of I-405 is less than 1,000 riders during peak periods. To encourage more transit demand, Sound Transit's Regional Express program is currently in the planning and early design stages of new park-and-ride lots, transit centers, and direct access ramps, including large-scale improvements to several I-405 interchanges. King County Metro and Sound Transit's evolving bus transit services concept for the I-405 study area would serve multiple activity centers, instead of the traditional Seattle/Bellevue hub-and-spoke design.

1.3.1.3 Trip Characteristics

Travel demand on I-405 appears greater for longer trips; along several sections of I-405, the average vehicle trip length exceeds 25 miles, roughly three times the study area average. Forecasts for 2020 show the freeway attracting even more long trips, with over 50 percent of all trips on I-405 exceeding 30 miles in length.

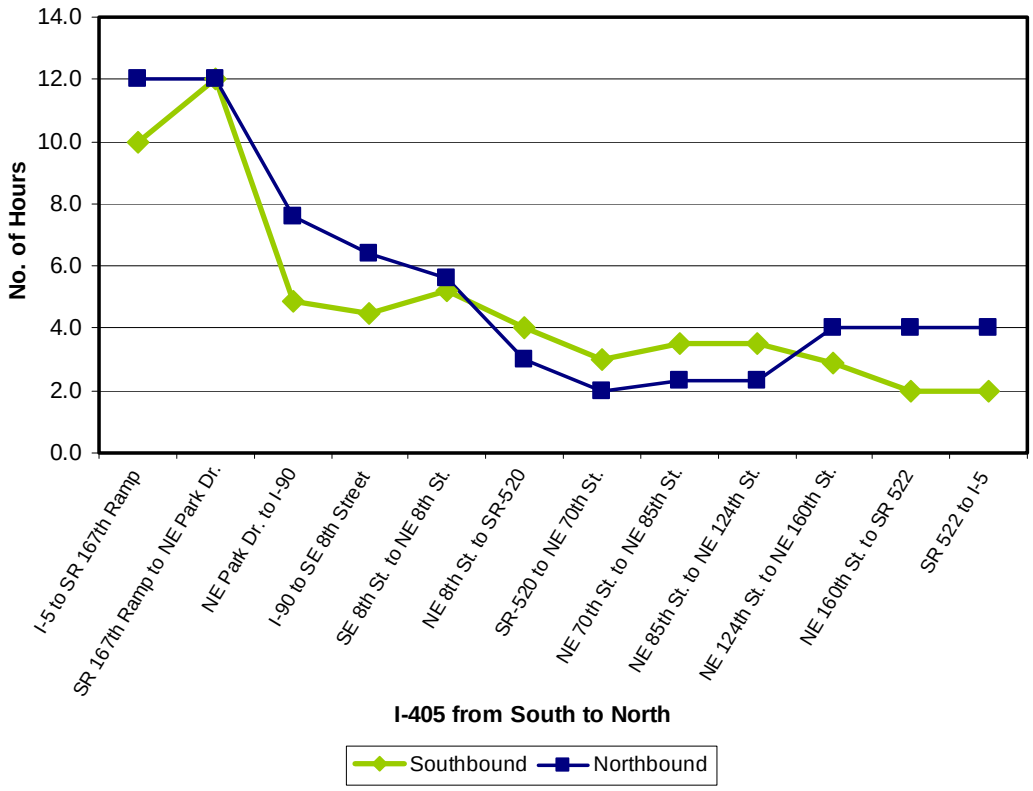
Today in the study area, only 20 percent of the total daily person-trips are home-based work trips, that is, commute trips directly to and from work. Thirty-nine percent of daily person-trips are other home-based trips (e.g., shopping, recreational, personal business) and 28 percent are non-home-based trips (e.g., traveling from work to daycare or shopping). School (2 percent) and commercial vehicle trips (11 percent) make up the rest. The relative shares of each trip purpose are expected to be similar in 2020. The fairly small share of trips that are purely to and from work reflects the fact that people are increasingly linking their trips, stopping on the way home to shop, pick up children, etc. (which are considered non-home based trips). This poses a challenge for transit and carpool/vanpool use.

1.3.2 Traffic Congestion and Reliability

1.3.2.1 Traffic Congestion

Heavy travel demand and frequent traffic incidents contribute to substantial traffic congestion on I-405, although they are not the only causes. Traffic congestion along I-405 is widespread during the morning and afternoon peak periods and has spread to surrounding time periods. A useful way to examine daily congestion is to look at the number of hours during which a facility is congested. For purposes of this analysis, "congestion" on the freeway is defined as travel speeds below 45 mph. Figure 1.3 illustrates the severity of traffic congestion that was present in 1997 at twelve points along I-405. The duration of traffic congestion in the northbound and southbound directions is roughly the same. The most congested area of I-405 is from I-5 in Tukwila to NE Park Drive in the city of Renton. Traffic congestion for 10-12 hours per day is typical in this section. For most other sections, traffic congestion lasts 2 to 7 hours per day.

Figure 1.3: Hours of Traffic Congestion on I-405



Source: PSRC Model, Mirai Associates

The average daily "volume per freeway lane" is quite consistent throughout the corridor, which demonstrates that traffic volumes alone do not cause congestion. The most likely reason for the high hours of congestion in the south end of I-405 relates to freeway "friction" caused by curves (e.g., the "S-Curves"), grades (e.g., Kennydale Hill), and complex interchanges at I-5 and SR 167.

Traffic congestion on I-405 often results in blockage of mainline flows throughout the day by vehicles that cannot get onto the ramps at such locations as SR 167, I-90, SR 520, and SR 522. The spill-over traffic from the ramps has created substantial mainline traffic congestion and operational hazards throughout the I-405 corridor. This congestion also causes traffic to back up onto local arterials.

1.3.2.2 Travel Time

Variation in congestion causes travel times to vary widely within the I-405 study area, depending upon the origin and destination of the trip and the mode of travel being used. Table 1.1 summarizes typical P.M. peak-hour travel times (1995 data) for a variety of study area trips, averaging 23 miles in length. The times are for door-to-door travel, including in-vehicle time and access to the trip's origin and destination. The fastest trips are typically by non-transit HOV mode, particularly for longer trips along I-405 that can take full advantage

of the HOV lane system. Traveling along the full length of I-405 during the peak period can take longer than one hour for general traffic. Transit travel times are often at least twice as long as driving the equivalent distance, especially for people walking to the transit stops. Transit travel times are 10 to 15 percent faster for park-and-ride access trips compared with walk access transit trips. This is partially due to shorter wait times at park-and-ride locations created by more frequent transit service.

Table 1.1: Comparison of Typical I-405 Study Area P.M. Peak Hour Travel Times by Mode

Trip	Distance (miles)	General Traffic Travel Time (min)	HOV Travel Time (min)	Transit Travel Time Walk Access (min)	Transit Travel Time Park-and-Ride Access (min)
Bellevue Central Business District (CBD) to Federal Way/Kent	25	56	40	95	83
Renton to Mill Creek	33	65	49	125	105
Bellevue CBD to Edmonds/Lynnwood	19	42	38	85	76
Tukwila/SeaTac to Redmond/Overlake	23	49	39	116	103
Issaquah/Cougar Mt. To Bothell/Kenmore	23	46	39	108	98
Issaquah/Cougar Mt. To Federal Way/Kent	23	56	47	132	118

Source: Puget Sound Regional Council (PSRC) Model – 1995 base year

1.3.2.3 Travel Time Reliability

Not only do travel times vary by segment within the I-405 study area, they are unpredictable from day to day. The reliability of travel times can be defined in terms of deviation from a mean travel time when travelers in the same transportation mode repeat their trips with identical travel routes starting at a same time of day. A transportation system provides a good level of service when travelers experience the same travel time every time or with little deviation.

The Washington State Transportation Center (TRAC) conducted research to measure the performance of the freeway system in the Central Puget Sound area, which includes the travel time reliability measure for general traffic along I-405. The most recent analysis results are described in the report entitled Central Puget Sound Freeway Network Usage and Performance, 1999 Update, Volume 1 (Washington State Transportation Center and Washington State Department of Transportation). The following summarizes the findings of the travel time reliability data prepared by the TRAC for 1999.

- Existing travel time reliability for the vehicles traveling *from Tukwila to Bellevue CBD* is very poor during the mid-day and evening periods and extremely poor during the morning peak period.
- Existing travel time reliability for the vehicles traveling *from Bellevue CBD to Tukwila* is poor throughout the day (from 6:00 A.M. to 6:30 P.M.). In particular, the travel time reliability during the afternoon peak period is very poor and the traffic flows in the period are highly unstable.

- Existing travel time reliability for the trips *from Bellevue CBD to SR 522* is relatively poor during the P.M. peak period. Travelers starting trips during other periods have experienced good travel time reliability.
- Existing travel time reliability problems for the trips *from SR 522 to Bellevue CBD* are confined to the A.M. peak period. The problem is worst at 8 A.M.

Traffic incidents along the freeway corridor are major causes of the reliability problems. The State's Incident Management Program was implemented to help improve overall travel time reliability within the I-405 Corridor. Reliability of travel in the HOV lanes is considerably better than in the general purpose lanes. HOV travel times typically operate from 15-20 miles per hour faster than the adjacent general purpose lanes during congested time periods. HOV travel time reliability suffers when there is a major incident along I-405 with stop-and-go conditions. In these situations, HOV speeds drop and the level of HOV lane violations tends to increase.

1.3.3 Freight Mobility

The decreasing reliability of the regional transportation system, including I-405, is creating a serious problem for regional freight mobility. The central Puget Sound region serves as an important freight gateway to Pacific Rim countries. Automobiles, forest and agricultural products, communications and computer equipment, and hundreds of other items continuously move over the region's roadways and railroads, to seaports and airports. Substantial delay as a result of transportation system congestion is costing the region's businesses nearly $700 million a year, according to information from WSDOT. The cost to the freight industry itself is estimated to be around $200 million per year.

Products shipped by truck across I-90 from Eastern Washington reach points north and south of Seattle via I-405. At the same time, I-405 serves as a heavily used transport corridor for local freight delivery to and from the cities along the corridor. Smaller trucks, such as delivery vans, account for many freight trips within the region, and these trips could benefit greatly from roadway improvements to I-405.

Interstate 405 continues to be used by freight carriers as an alternative to the preferred I-5 route when severe congestion occurs on I-5 in downtown Seattle near the Convention Center (one of the most substantial freight mobility bottlenecks in the region). I-405 also provides ready access to the distribution centers along SR 167 in the Kent Valley. Volumes of heavy trucks on the portion of I-405 south of I-90 are about double those along the northern portion due to truck movements to and from the Kent Valley. Truckers identify congestion at the SR 167/I-405 interchange as one of the worst transportation system problems in the region, and the trucking community supports improvements to this major truck corridor interchange as one of its top priorities.

The latest data indicate that the central Puget Sound region's roadways carry approximately 1.2 million truck trips each day, with about 70 percent of those trips occurring within King County. I-405 carries a substantial portion of those trips, moving up to 90 percent of the total truck origins and destinations in east King County. Truck volumes along I-405 are expected to grow by 50 percent by the year 2010. Reductions in system reliability and resulting higher transportation costs increase the cost of manufacturing and distributing goods, while adversely affecting economic vitality and job creation. Accessibility to markets

becomes increasingly difficult with worsening traffic congestion and delay. Improvements to the I-405 corridor could provide tangible economic benefits for all of Washington State.

1.3.4 Safety

Twenty-nine of the 280 high accident locations in King and Snohomish counties are located along I-405. Most high accident locations are associated with ramps connecting to I-405, including those at SR 181 (Interurban), SR 169, SR 900 (Sunset and Park), Coal Creek Parkway, SE 8th Street, NE 4th Street, NE 8th Street, SR 908 (NE 85th Street), NE 116th Street, NE 160th Street, and SR 527. The portion of I-405 north of SR 527 is identified as a high accident corridor due to the relatively higher speeds and more serious injuries associated with these accidents.

Over the three-year period from 1994 to 1996, a total of 5,580 accidents was reported along I-405. Most collisions occurred on the mainline freeway, with about one-fourth of all accidents occurring on the ramps, collector-distributor roads, and cross streets at the interchanges. About half of all collisions involve property damage only, while half involve injuries or fatalities. This injury pattern applies equally to the mainline and ramp segments; however, all seven fatalities reported in this period occurred on the I-405 mainline.

The overall accident rate along I-405 (1.6 accidents per million vehicle miles) is about midrange compared to other freeways in King County. The rates are lower than the average rate for all state highways (1.88 accidents per million vehicle miles, or MVM) and for state highways in King County (2.27 accidents per MVM). On comparable local freeways, I-5 and SR 520 both exhibit accident rates of about 2.0 accidents per MVM. WSDOT's ramp metering program on I-405 has been very successful. Rear-end and sideswipe accidents have decreased by 60 percent to 70 percent near locations with ramp meters.

For state roads serving as surface arterial routes, accident rates typically fall into the range of three to five accidents per MVM. This rate is related to the presence of traffic signals, driveways, pedestrians, and bicyclists, and lower levels of access control. These accident rates are typical of urban arterial facilities. Accident rates for selected arterial and collector routes in the primary study area generally range between two and four accidents per MVM, with some streets higher. These streets also experience higher accident rates due to the presence of signalized intersections, driveways, and other conflicts.

■

1.4 Purpose of the Proposed Action

The purpose of the proposed action is:

> To provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meets the need in a manner that:
>
> - Provides for maintenance or enhancement of livability for communities within the corridor;
> - Provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;

- Supports a vigorous state and regional economy by responding to existing and future travel needs; and
- Accommodates planned regional growth.

1.5 Study Area

The study area for the I-405 Corridor Program defines the general boundaries of the I-405 corridor and encompasses the essential improvements proposed within each alternative. It encompasses an area of approximately 250 square miles that extends on both sides of I-405 between its southern intersection with I-5 in the city of Tukwila and its northern intersection with I-5 in Snohomish County. This area includes the cities of Tukwila, Renton, Newcastle, Bellevue, Redmond, Kirkland, Woodinville, and Bothell, as well as portions of the cities of Issaquah, Kenmore, Kent, Lynnwood, and Mercer Island and adjacent unincorporated areas of King and Snohomish counties.

For purposes of environmental analysis, documentation, and review, potential substantial adverse effects are identified and evaluated wherever they are reasonably likely to occur in the region.

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2. DESCRIPTION OF ALTERNATIVES

Four programmatic action alternatives and a No Action Alternative are evaluated in this Environmental Impact Statement (EIS). Each of the four action alternatives is a combination of multi-modal transportation improvements and other mobility solutions packaged to work together as a system. Each package demonstrates a unique emphasis in response to the purpose and need for the I-405 Corridor Program. The improvements and mobility solutions that comprise each action alternative are assembled from the following major elements:

- Transportation demand management (TDM)
- Regional transportation pricing
- Local transit service (bus and other technologies)
- Bus rapid transit (BRT) operating in improved-access high-occupancy vehicle lanes on I-405, I-90, and SR 520
- Fixed-guideway high-capacity transit (HCT) operating with physical separation from other transportation modes
- Arterial high-occupancy vehicle (HOV) and bus transit priority improvements
- HOV express lanes on I-405 and HOV direct access ramps
- Park-and-ride capacity expansions
- Transit center capacity improvements
- Basic I-405 safety and operational improvements
- I-405 general purpose lanes
- I-405 collector-distributor lanes
- I-405 express lanes
- SR 167 general purpose lanes
- Capacity improvements on freeways connecting to I-405
- Planned arterial improvements
- Capacity improvements on north-south arterials
- Arterial connections to I-405
- Pedestrian and bicycle improvements
- Intelligent transportation system (ITS) improvements
- Truck freight traffic enhancements

These elements are described in greater detail in Appendix A (*Major Elements of Alternatives*). Table 2.1 shows the system elements contained in each of the alternatives.

Table 2.1: System Elements Contained in Each Alternative

	No Action Alternative	Alternative 1 HCT/TDM Emphasis	Alternative 2 Mixed Mode with HCT/Transit Emphasis	Alternative 3 Mixed Mode Emphasis	Alternative 4 General Capacity Emphasis
Committed and funded freeway projects	X	X	X	X	X
Committed and funded HOV projects	X	X	X	X	X
Committed and funded arterial projects	X	X	X	X	X
Park–and-ride expansions included in No Action	X	X	X	X	X
Transit center improvements included in No Action	X	X	X	X	X
Transportation Demand Management (TDM)	X	X	X	X	X
Expanded TDM regional congestion pricing strategies		X			
Expand transit service by 100% compared to K. Co. 6-year plan		X	X	X	
Expand transit service by 50% compared to K. Co. 6-year plan					X
Physically separated, fixed-guideway HCT system		X	X		
Bus rapid transit operating in improved access HOV lanes				X	
Arterial HOV priority for transit		X	X	X	
HOV direct access ramps on I-405			X	X	X
Additional park-and-ride capacity expansion		X	X	X	
Additional transit center improvements		X	X	X	
Basic I-405 safety and operational improvements		X	X	X	X
I-405/ SR 167 interchange ramps for all major movements			X	X	X
One added general purpose lane in each direction on I-405			X		X
Two added general purpose lanes in each direction on I-405				X	

Table 2.1: (continued) System Elements Contained in Each Alternative

	No Action Alternative	Alternative 1 HCT/TDM Emphasis	Alternative 2 Mixed Mode with HCT/Transit Emphasis	Alternative 3 Mixed Mode Emphasis	Alternative 4 General Capacity Emphasis
Two express lanes added in each direction on I-405 [a]					X
Widen SR 167 by one lane each direction to study area boundary			X	X	X
Improved capacity of freeways connecting to I-405			X	X	X
Planned arterial improvements			X	X	X
Complete missing segments of major arterial connecting routes [b]				X	
Expand capacity on north-south arterials [b]					X
Upgrade arterial connections to I-405 [b]			X	X	X
Pedestrian / bicycle connections and crossings of I-405		X	X	X	X
Intelligent transportation system (ITS) improvements		X	X	X	X
Truck freight traffic enhancements		X	X	X	

[a] To be studied as general purpose lanes and as managed high-occupancy/toll (HOT) lanes.
[b] With jurisdictional approval.

2.1 No Action Alternative

The No Action Alternative includes the funded highway and transit capital improvement projects of cities, counties, Sound Transit, and WSDOT. These projects are already in the pipeline for implementation within the next six years, and are assumed to occur regardless of the outcome of the I-405 Corridor Program. For this reason, they are referred to collectively as the No Action Alternative.

Under the No Action Alternative, only limited expansion of state highways would occur. No expansion of I-405 is included; however, a new southbound I-405 to southbound SR 167 ramp modification would be constructed. Approximately 15 arterial widening and interchange improvement projects would be implemented within the study area by local agencies. Short-term minor construction necessary for continued operation of the existing transportation facilities would be accomplished, and minor safety improvements would be constructed as required.

It is assumed that Phase I of Sound Transit's regional transit plan would be completed. Approximately 36 HOV direct access projects, arterial HOV improvements, park-and-ride

expansions, and transit center enhancements would be implemented in the study area as part of the No Action Alternative. Bus transit service levels by the 2020 horizon year are based upon the Puget Sound Regional Council (PSRC) Metropolitan Transportation Plan. A 20 percent increase in bus transit service hours above the current King County 6-year plan level is assumed by year 2020. Parking costs are expected to increase due to market forces. Additional urban centers and major employment centers within the study area are also assumed to implement parking charges by 2020.

These baseline transportation improvement projects are, or will be, the subject of separate and independent project-specific environmental analysis, documentation, and review. Their direct impacts are not specifically evaluated by the I-405 Corridor Program. However, the secondary and cumulative impacts of these projects are, addressed as part of the analyses contained herein.

Figure 2.1 shows the locations of the improvements contained in the No Action Alternative. Appendix B (*Alternatives Project Matrix*) identifies the specific transportation improvements and mobility solutions contained within each system element and alternative.

2.2 Alternative 1: High-Capacity Transit/TDM Emphasis

This alternative attempts to minimize addition of new impervious surface from general purpose transportation improvements and to encourage transit use within the study area. To do this, Alternative 1 emphasizes reliance on a new physically separated fixed-guideway HCT system, substantial expansion of local bus transit service, non-construction mobility solutions such as regional transportation pricing, and transportation demand management (TDM) strategies. It does not include any increase in roadway capacity beyond the No Action Alternative. All improvements contained in the No Action Alternative are included in Alternative 1, as well as in the other action alternatives. Table 2.1 shows the system elements contained in each of the alternatives.

Alternative 1 includes a physically separated, fixed-guideway HCT system, potentially using some form of rail technology and potentially operating within portions of the existing Burlington Northern Santa Fe (BNSF) right-of-way. The HCT system would serve the major activity centers within the study area, and would include connections to Redmond and Issaquah and west across Lake Washington to Seattle. The connection across Lake Washington is being evaluated as part of the ongoing Trans-Lake Washington Project EIS. Bus transit service would be doubled compared to the current King County 6-year plan. (The effects of recent transit reductions on short-term transit service have not been assumed.) Arterial HOV priority for transit, additional park-and-ride capacity, and additional transit center improvements also would be provided.

Legend: No Action Alternative Projects

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative would be implemented as part of each action alternative.

SNOHOMISH

KING

Mill Creek
Lynnwood
Edmonds
Mountlake Terrace
Woodway
Brier
Bothell
Kenmore
Woodinville
Shoreline
Lake Forest Park
Simonds Rd NE
Duvall
NE 128th St
Kirkland
Redmond
Lake Washington
Union Bay
Lake Union
Narrow Point
Hunts Point
Clyde Hill
Medina
NE 8th St
Bellevue
Lake Sammamish
Redmond Fall City Rd
Seattle
Beaux Arts
148th Ave SE
Sammamish
Mercer Island
Duwamish River
Coal Creek Pky SE
Newcastle
Issaquah
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Maple Valley
Covington
Auburn
Federal Way

5 90 405 527 524 522 202 520 99 509 900 167 515 169 203 18 516

No Action Alternative

Figure No. 2.1

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A package of basic improvements to I-405 would be implemented, including climbing lanes, auxiliary lanes, I-90/Coal Creek interchange improvements, and I-405/SR 167 interchange improvements, among others. No additional general purpose lanes on I-405 would be provided.

Limited arterial HOV/transit improvements would be provided to facilitate access to I-405 and the fixed-guideway HCT system, along with non-construction treatments such as providing priority for transit at signals and intersections. Regional pricing strategies similar to those currently being studied by the Puget Sound Regional Council (PSRC) would be implemented along with a package of core TDM strategies that are common to all the action alternatives.

Figure 2.2 shows the location of improvements contained in Alternative 1. Appendix A (*Major Elements of Alternatives*) describes the system elements that are the building blocks for the alternatives. Appendix B (*Alternatives Project Matrix*) identifies the specific transportation improvements and mobility solutions contained within each system element and alternative.

2.3 Alternative 2: Mixed Mode with High-Capacity Transit/Transit Emphasis

This alternative attempts to improve mobility options in the study area relative to Alternative 1 by providing the same substantial commitment to transit, combined with the minimum increase in roadway capacity for HOV and general purpose traffic. To do this, Alternative 2 would implement a new physically separated, fixed-guideway HCT system, substantial expansion of local bus transit service, one added lane in each direction on I-405, and improvements to connecting arterials. All improvements contained in the No Action Alternative are included in Alternative 2, as well as in the other action alternatives. Table 2.1 shows the system elements contained in each of the alternatives.

Alternative 2 includes a physically separated, fixed-guideway HCT system, potentially using some form of rail technology. The HCT system would serve the major activity centers within the study area, and would include connections to Redmond and Issaquah and west across Lake Washington to Seattle. The connection across Lake Washington is being evaluated as part of the ongoing Trans-Lake Washington Project EIS. Bus transit service would be doubled compared to the current King County 6-year plan. Arterial HOV priority for transit, additional park-and-ride capacity, and additional transit center improvements are included, as well as completion of the HOV freeway-to-freeway ramps along I-405.

To increase general purpose capacity, I-405 would be widened by one lane in each direction. One lane also would be added in each direction on SR 167 to the study area boundary. The package of basic improvements to I-405 would be implemented, along with the core TDM strategies that are common to all action alternatives. New capacity improvements on connecting arterials and freeways would be provided along with planned arterial improvements of local jurisdictions.

Figure 2.3 shows the location of improvements contained in Alternative 2. Appendix A (*Major Elements of Alternatives*) describes the system elements for the alternatives. Appendix B (*Alternatives Project Matrix*) identifies the specific transportation improvements and mobility solutions contained within each system element and alternative.

2.4 Alternative 3: Mixed Mode Emphasis

This alternative attempts to substantially improve mobility options for all travel modes and to provide a HCT system throughout the study area at a lower cost than the physically separated, fixed-guideway system proposed in Alternatives 1 and 2. To do this, Alternative 3 would implement a new bus rapid transit (BRT) system, substantial expansion of local bus transit service, two added lanes in each direction on I-405, and improvements to arterials within the study area. All improvements contained in the No Action Alternative are included in Alternative 3, as well as in the other action alternatives. Table 2.1 shows the system elements contained in each of the alternatives.

Alternative 3 includes a BRT system operating in improved-access HOV lanes on I-405, I-90, and SR 520. The BRT system would serve the major activity centers within the study area, and would include connections to Redmond and Issaquah and west across Lake Washington to Seattle. The connection across Lake Washington is being evaluated as part of the ongoing Trans-Lake Washington Project EIS. Bus transit service would be doubled compared to the current King County 6-year plan. Improved arterial HOV priority for transit, park-and-ride capacity, transit center improvements, and HOV direct access are included, as well as completion of the HOV freeway-to-freeway ramps along I-405.

This alternative would substantially increase capacity for general purpose traffic on I-405 by adding two lanes in each direction and improving major interchanges. These added general purpose lanes replace most of the auxiliary and climbing lanes contained in the package of basic improvements to I-405 that are common to the other action alternatives. One lane would be added in each direction on SR 167 to the study area boundary. The core TDM strategies would be implemented. New capacity improvements on connecting arterials and freeways would be provided. Selected arterial missing links would be completed together with planned arterial improvements of local jurisdictions.

Figure 2.4 shows the location of improvements contained in Alternative 3. Appendix A (*Major Elements of Alternatives*) describes the system elements for the alternatives. Appendix B (*Alternatives Project Matrix*) identifies the specific transportation improvements and mobility solutions contained within each system element and alternative.

2.5 Alternative 4: General Capacity Emphasis

This alternative places the greatest emphasis on increasing general purpose and HOV roadway capacity, with substantially less reliance on new transit facilities or added local bus service than any of the other action alternatives. To do this, Alternative 4 would provide one additional lane in each direction on I-405, a new four-lane I-405 express roadway, and the other general purpose and HOV roadway improvements on I-405 and connecting freeways contained in Alternative 3. The expansion of local bus transit service would be about half that proposed under the other action alternatives. All improvements contained in the No Action Alternative are included in Alternative 4, as well as in the other action alternatives. Table 2.1 shows the system elements contained in each of the alternatives.

Legend: Alternative 1: High Capacity Transit/ Transportation Demand Management (TDM) Emphasis

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.

SNOHOMISH

KING

Mill Creek
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Bothell
Kenmore
Woodinville
Shoreline
Lake Forest Park
Simonds Rd NE
Duvall
NE 128th St
Kirkland
Redmond
Lake Washington
Union Bay
Lake Union
Narrow Point
Hunts Point
Clyde Hill
Medina
NE 8th St
Bellevue
Lake Sammamish
Redmond Fall City Rd
Seattle
Beaux Arts
148th Ave SE
Sammamish
Mercer Island
Duwamish River
Coal Creek Pky SE
Newcastle
Issaquah
Tukwila
SE 128th St
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Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Maple Valley
Covington
Auburn
Federal Way

5 90 527 524 522 202 405 99 520 203 509 900 169 167 515 18 516

Alternative 1: High Capacity Transit/ Transportation Demand Management (TDM) Emphasis

Figure No. 2.2

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Legend: Alternative 2: Mixed Mode with High Capacity Transit Emphasis

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.

SNOHOMISH

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Shoreline
Lake Forest Park
Simonds Rd NE
Duvall
NE 128th St
Kirkland
Redmond
Lake Washington
Union Bay
Lake Union
Narrow Point
Hunts Point
Clyde Hill
Medina
NE 8th St
Bellevue
Redmond Fall City Rd
Lake Sammamish
Seattle
Beaux Arts
Mercer Island
148th Ave SE
Sammamish
Duwamish River
Coal Creek Pky SE
Newcastle
Issaquah
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Maple Valley
Covington
Auburn
Federal Way

Alternative 2: Mixed Mode with High Capacity Transit Emphasis

Figure No. 2.3

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Legend: Alternative 3: Mixed Mode Emphasis

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.

SNOHOMISH

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Mill Creek
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Redmond Fall City Rd
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Covington
Auburn
Federal Way

Alternative 3: Mixed Mode Emphasis

Figure No. 2.4

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Alternative 4 would expand freeway capacity by adding one additional general purpose lane in each direction on I-405 in most segments, improving major interchanges, and constructing a new four-lane I-405 express roadway consisting of two lanes in each direction with limited access points. Completion of the HOV freeway-to-freeway ramps along I-405 and the package of basic improvements to I-405 would be implemented.

Arterial improvements would include additional expansion of major arterial routes and connections to I-405 in conjunction with the planned arterial improvements of local jurisdictions. Transit in this alternative is assumed to be a continuation of the existing local and express bus transit system with a 50 percent increase in service compared to the current King County 6-year plan. Park-and-ride capacity would be provided along with the core TDM strategies that are common to all action alternatives.

Figure 2.5 shows the location of improvements contained in Alternative 4. Appendix A (*Major Elements of Alternatives*) describes the system elements for the alternatives. Appendix B (*Alternatives Project Matrix*) identifies the specific transportation improvements and mobility solutions contained within each system element and alternative.

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Legend: Alternative 4: General Capacity Emphasis

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.

SNOHOMISH

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Tukwila
SE 128th St
Renton
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Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Maple Valley
Covington
Auburn
Federal Way

Alternative 4: General Capacity Emphasis

Figure No. 2.5

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3. METHODOLGY AND COORDINATION

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3.1 Evaluation Criteria

To evaluate each alternative's potential impacts on land use, projects were reviewed in the context of future land use (2020-PSRC Forecast) summarized from comprehensive plans for jurisdictions in the study area. Since some of the projects would pass through more than one land use type, the most environmentally sensitive land use type was used to characterize project impacts. For this analysis, land use types closest to an undisturbed natural setting were considered most sensitive, followed by residential uses, and then commercial and industrial uses (See Appendix E – Future Land Use Tables). Land uses are ranked by the potential for projects to disrupt existing activities or make continued use less desirable. The future land use activity types, ranked in order of sensitivity and general compatibility (most sensitive to least sensitive) are:

Forest	Government
Open Space	Industrial
Agriculture	Mixed
Residential	Other
Commercial	Right-of-Way

This report relies on the PSRC modeling forecast (See Appendix D) for defining the change in pressures on the land use patterns, forecasted by PSRC, from 2000 to 2020. The outputs were then re-run with the alternative accessibility scenarios. The entire region was modeled but the results were summarized for the I-405 corridor. The changes in land use are potential impacts of the changes in accessibility and **not assumptions** for evaluating the various transportation improvements.

It is important to note that the Forecast Analysis Zones (FAZs) may reveal a "clustering" of growth areas; however this report discusses the potential impacts with references to geographic cities, historical names (e.g., Eastgate, Factoria) and the freeway corridors.

Direct impacts to land use are those land use changes that would occur as a localized effect of construction and operation of project elements. Direct impacts typically occur at or very close to the time of the action itself. A direct impact could be inability of a land use to continue to function due to isolation or segmentation. For example, at a programmatic level, a new roadway bisecting an existing residential neighborhood would be a direct impact.

Direct land use impacts were evaluated by comparing individual projects (See Appendix E) with generalized future land use types compiled and mapped in the GIS, and by examining project design concepts and the extent to which they might cause existing land uses to be substantially disrupted. Acquisitions of land for right-of-way when surrounding land uses would not be changed was not considered being a substantial land use impact. Analyses of right-of-way acquisitions and displacements are presented in the *I-405 Corridor Program Draft Right-of-Way and Displacements Expertise Report* (DEA, 2001).

Secondary impacts are those caused by the action and occur later in time (after the action is completed) but still reasonably foreseeable. Secondary effects may be more detectable during project-level environmental review. Therefore, the potential for secondary effects will be analyzed in the future project-level environmental documentation.

Changes in accessibility that would result from implementing each of the four action alternatives were put back into the model so that modified distributions of population, employment, and households could be calculated. One of the important variables of the model was the requirement that land planned for specific uses be available before allocations could occur. As a result, the reallocations are consistent with planned land use. The reallocations also allow for insight into the future direction of growth and where pressures exist to change land use types.

In general, the results of the modeling can be thought of in terms of pressures for land use change brought about by changes in accessibility. For example, a transportation improvement (alternative) in the I-405 corridor adds capacity and reduces travel time in the study area relative to the No Action Alternative. The residential growth, responding to change in pressures, will tend to disperse or move outwards toward South Snohomish County/South King County/North Pierce County. The EMPAL/DRAM model locates employment first and then locates residential growth in relation to, among other things, accessibility to the employment opportunities. Therefore, if travel times between residential areas in South Snohomish County and employment opportunities in Redmond or Renton are reduced, South Snohomish County should become more attractive as a residential location. As a specific example, Alternative 4, with the addition of a General Purpose & Express Lanes in the I-405 corridor, shows the greatest dispersion of residential growth to the north, south, and east. [1]

Potential zoning changes are not addressed in this analysis for the following reasons.

1. Many of the projects have not been designed beyond the programmatic level and are not sufficiently site specific to allow for accurate assessment. For example, until transit centers are specifically located, their impact on zoning cannot be assessed.
2. The forecasts of employment and households that were used to evaluate change in pressure, do not exceed the capacity of available land (by type) as identified in comprehensive plans and established in the PSRC model (Due to constraints in PSRC's land use and employment models). Since zoning is a direct tool to implement the comprehensive plans, which have been certified by PSRC, there should be a consistency between zoning and projected future land use. The *I-405 Corridor Program Draft Land Use Plans and Policies Expertise Report* (DEA, 2001) can provide greater detail.
3. This is a corridor level analysis for NEPA/SEPA and zoning is a project level issue.

In order to assess the land use impacts that could result from implementation of the project alternatives, forecasts prepared by the Puget Sound Regional Council (1999) were used to represent the No Action Alternative. The model provides a forecast that can assess the impacts of the No Action Alternative, which in turns would include the impacts of the Action Alternatives. Appendix D provides detailed discussion that describes some of the key topics associated with PSRC's forecasts and modeling that were relevant and utilized for this analysis.

1 Cathy Strombom, PB, Discussion on Land Use Model Results 2/15/2001

In addition to review of the land use maps, King County, Snohomish County, and the Puget Sound Regional Council were consulted in order to gain an understanding of issues related to growth and projected land use change.

3.2 Coordination with Agencies and Jurisdictions

In addition to review of the land use maps, King County, Snohomish County, and the Puget Sound Regional Council were consulted in order to gain an understanding of issues related to growth and projected land use change.

3.3 Plans, Policies, and Approvals

Land use in the study area is managed through comprehensive plans prepared for each jurisdiction under guidelines set forth by the Washington State Growth Management Act (GMA) (RCW 36.70A). VISION 2020, the Metropolitan Transportation Plan, and the Countywide Planning Policies are reflective of the GMA mandates and further support the local plans. Implementation of land use management is accomplished through the zoning ordinance for each jurisdiction. The relationship of the proposed project to land use plans and policies is discussed in greater detail in the *I-405 Corridor Program Draft Land Use Plans and Policies Expertise Report* (DEA, 2001). The key policies are: GMA, Metropolitan Transportation Plan (MTP), VISION 2020, Sound Move/Sound Transit, King County and Snohomish County Countywide Planning Policies, and local Comprehensive Plans

3.3.1 Washington State Growth Management Act

With little statewide or regional direction on growth, and the continued growth pattern, citizens' concerns triggered the adoption of the Washington State Growth Management Act (GMA) in 1990. The Act defined urban and rural growth areas (UGAs), designated urban centers (which came about through VISION 2020 and Countywide Planning Policies), established density targets in those urban centers, and established minimum levels of services on statewide infrastructure. For further detail see the I-405 Corridor Program Draft Land Use Plans and Policies Expertise Report (DEA, 2001).

3.3.2 VISION 2020

The Puget Sound Regional Council (PSRC) adopted the update of VISION 2020 in 1995. VISION 2020 serves as a long-range growth management, economic, and transportation strategy. It establishes a multiple-center approach to development that promotes a jobs/housing balance and plans for needed transportation improvements, specifying that improvements should occur at the same time as employment growth to implement the infrastructure concurrency requirements of GMA. VISION 2020 focuses growth into the Urban Growth Area (UGA) defined by each county. The Metropolitan Transportation Plan (MTP) was adopted in 1995 as the transportation element of VISION 2020.

3.3.3 Metropolitan Transportation Plan

As noted, the MTP was initially adopted in 1995. The MTP is a long-range plan to guide transportation investments in the central Puget Sound region. It includes specific provisions

relevant to the I-405 corridor, including policies to support development of dense centers and a greater mix of land uses, connected by a network of transit and non-motorized modes of travel. Key components of the MTP include regional transportation pricing strategies, freeway and arterial HOV systems, facilities for pedestrians and bicycles, travel demand management, and establishment of high-capacity transit modes along congested corridors that connect urban centers. The Puget Sound Regional Council updated the 1995 MTP in a revised plan titled Destination 2030 in May 2001. The basic building block of Destination 2030 is VISION 2020, with the same emphasis on coordinated city, county, port, and transit agency plans, and adopted multi-county and countywide planning policies. Destination 2030 takes into account the different growth patterns in the region and calls for focused growth in the urban centers. It also acknowledges implementation of a light rail system in the 2010 horizon with subsequent phases. Destination 2030 takes an important step in calling for reduction of congestion points and includes many of the I-405 corridor improvements within the 2010 and 2030 horizons. The plan takes the existing list of projects from VISION 2020 and revises them based on PSRC modeling. It also includes a 2001–2010 "action strategy," which calls for a regional phasing plan to determine which transportation projects should be built first for the best land use effect.

All of the action alternatives are consistent with and support the VISION 2020 and the Metropolitan Transportation Plan/Update. Specifically, as a long-range guide to the region and transportation investments, the I-405 Corridor Program is what is called for in the transportation and land use policies.

The MTP includes policies that support the development of dense urban centers and greater mix of land uses with a multi-modal transportation system. The I-405 Corridor Program action alternatives, if implemented, would support a re-focused growth pattern into the Urban Centers, while providing the multi-modal transportation system.

King County, Pierce County, and Snohomish County, working with the local cities, took the lead in developing and adopting County-Wide Planning Policies (CWPP), which integrated land use planning with transportation planning policies. Cities, including the Eastside cities within the I-405 study area, adopted the CWPP as one regional implementation tool of the GMA and VISION 2020 policies.

The CWPP establish the urban center concept, which is beginning to take form within the designated UGA. Some of the urban centers are in the I-405 corridor area and planned infrastructure improvements will affect their long-term viability.

All of the local jurisdictions in the I-405 Corridor Program study area have adopted comprehensive plans in accordance with requirements of GMA, the CWPP and the PSRC multi-county planning policies. These comprehensive plans include a transportation element that has been reviewed and certified by the PSRC as conforming to the transportation planning elements of the GMA, VISION 2020, and the MTP. There are 80 adopted comprehensive plans in the Puget Sound region, 74 of which have certified transportation elements. The concurrency requirements of transportation elements require that key infrastructures be built or planned for within a 6-year time frame of any proposed development. The I-405 Corridor Program alternatives are generally supportive of the applicable jurisdictional local transportation plans.

There is detailed discussion and review of the regional and local policies in the *I-405 Corridor Program Draft Land Use Plans and Policies Expertise Report* (DEA, 2001).

4. AFFECTED ENVIRONMENT

■

4.1 Historical Land Use Changes and Trends

The present land use pattern is illustrated in Figure 4.1**,** the general current land use within the study area based on information compiled through King County's geographic information system (GIS).

The initial land use on the East Side, historically, began as retail, serving the needs of the residents, with the explosion of high-tech and Boeing, brought about the stand-alone commercial centers. From 1990 to 1997 the population increased by nearly 60,000 people and employment increased by 80,000 jobs as major international companies like Microsoft located on the Eastside and Boeing, the Eastside's biggest employer, expanded. Roadways were expanded and built in response to the employment and population growth. The land use plans and zoning currently approved for the Eastside anticipate considerable development over the next 30 years as well.

In the 1990s, towns that were once "bedroom" communities, such as Bellevue and Redmond, were transformed into major employment and commercial centers. The long-term regional growth trend has been toward population dispersion outward from Seattle and, late in the 1990s, from the Eastside cities eastward into agricultural and forested areas.

The I-405 corridor experienced the greatest growth between 1980 and 2000 as reflected in Figure 4.2. The growth that took place in employment and households was above the regional average.

Between 2000 and 2030 the region is projected to add about 1.5 million people, 2 million new households, and 700,000 new jobs. The population in the region is expected to grow at an annual rate of 1.2 percent over the next 30 years, a substantial slowdown from the 2.0 percent pace of the 1960-00 period. By 2030, the population, as shown in Figure 4.3 is expected to reach 4.7 million, a 44 percent increase from the 2000 level.

The trend of declining household size is expected to continue in the future, but at a more moderate pace. The updated forecasts project that, by 2030, there will be two million households in the region, a 50 percent increase above the 2000 total. The region's average household size is expected to be 2.3 people per household by the year 2030, down from the 2000 level of 2.5 persons per household (2001 MTP Baseline Technical Report – June 2000).

In the 1990s, aerospace was a major sector of the Puget Sound area's employment and economic base. In 1999, aerospace employment represented 40 percent of the total manufacturing sector jobs. Yet while aerospace was a substantial factor in the economy, the pre-packaged software industry accounted for 13 percent of the region's earnings in 1999. Recent forecasts indicate a shift in the regional economy to a new and growing sector – trade and service industries.

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Legend: Current Land Use within the Study Area

Current Land Use
- Forest
- Open Space
- Agriculture
- Commercial
- Industrial
- Residential
- Government
- Right of way
- Mixed
- Other land use (inside UGA)
- Undefined

- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Mill Creek
Lynnwood
Edmonds
Mountlake Terrace
Woodway
Brier
Bothell
Kenmore
Shoreline
Lake Forest Park
Simonds Rd NE
Woodinville
Duvall
NE 128th St
Kirkland
Redmond
Lake Washington
Union Bay
Lake Union
Yarrow Point
Hunts Point
Clyde Hill
Medina
NE 8th St
Bellevue
Lake Sammamish
Redmond Fall City Rd
Seattle
Beaux Arts
Mercer Island
148th Ave SE
Sammamish
Duwamish River
Coal Creek Pky SE
Newcastle
Issaquah
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
Kent
132nd Ave SE
Des Moines
Covington
Maple Valley
Auburn
Federal Way

Current Land Use within the Study Area

Figure No. 4.1

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Figure 4.2: Population, Employment, and Household Trends from 1980 and Projections at 2020 and 2030

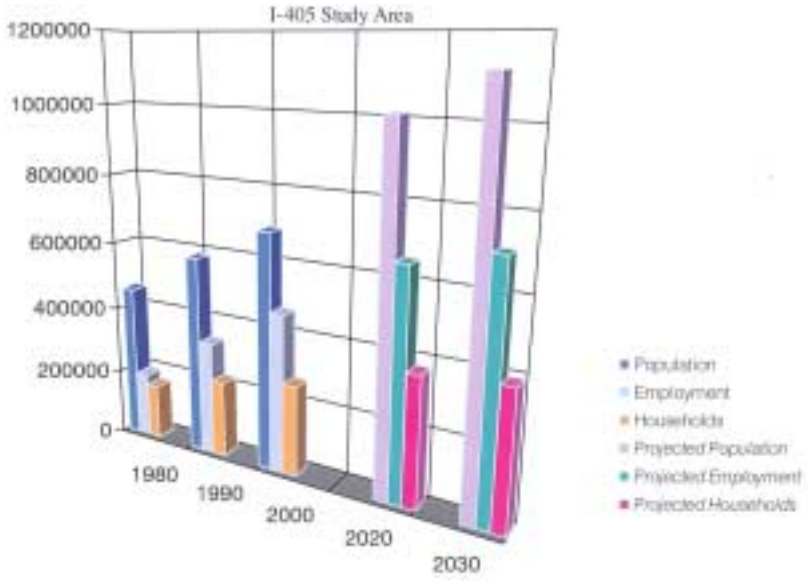
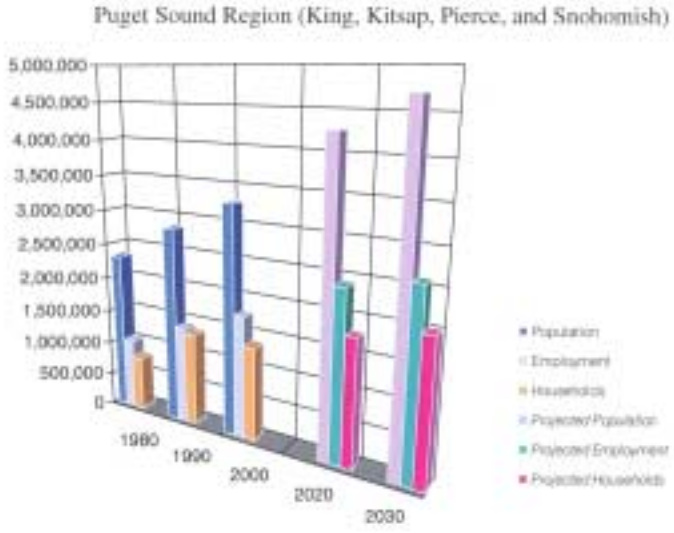


Figure 4.3: Population, Employment, and Household Trends from 1980 to 2000 and Projections at 2020 and 2030



The forecast for 2030 economic performance will be tied to the growth in the trade and service industries. Projections suggest that trade and services will be the main growth sectors at an annual growth rate of about 1 percent or more between 2000 and 2030. The region is projected to have 1.5 million trade and service jobs, about 58 percent of all employment forecast through the year 2030 (2001 MTP Baseline Technical Report – June 2000.

4.2 Land Capacity

Several sources were examined to determine whether or not there is land capacity within the study area to contain economic and demographic growth to at least the year 2020 within the current UGA boundary. According to PSRC, King County can absorb all of the growth forecasted to take place until at least 2020 (Blain 2000). Similarly, Snohomish and Pierce Counties have the capacity to absorb their forecasted growth.

A study conducted for PSRC in 1998 (PSRC 1998) found that of the 64,161 acres of land designated for industrial use in comprehensive plans, 20,913 acres were available for future development. Table 4.1 shows the available industrial land by county within the region. This study defined industrial land as urban land designated for manufacturing, heavy or light industry, research and development wholesale trade, warehousing, distribution, and business parks. Land with critical area features (wetlands, flood prone, steep slopes and other environmental constraints) were not included in the study; nor were future street rights-of-way. Future project-specific environmental analysis will include greater level of analysis. The *I-405 Corridor Program Draft Wetlands and Right-of-Way and Displacements Expertise Reports* (DEA, 2001) contain further analysis.

Table 4.1: Central Puget Sound Region Supply of Available Industrial Land (Comprehensive Plan Designation –Industrial)

King County	3,973 acres
Pierce County	7,738 acres
Snohomish County	6,065 acres
Kitsap County	3,137 acres

About one third of the land for which industrial development is planned needs infrastructure to be useable for most industrial activities. Considering that the same PSRC study (PSRC 1998) also estimated the region's demand for industrial land through 2020 to be 5,600 to 7,100 acres, this would indicate that it is possible that the entire demand for industrial land could be met with existing infrastructure. In practical terms, infrastructure may not always exist where the demand for industrial land is located, and infrastructure improvements continue to be an important part of public sector investments in the region. With the exception of some lands in central Pierce County, about 95 percent of the region's industrial land supply are within 4 miles of the National Highway System.

King County and the local jurisdictions within the county monitor land capacity for residential land development (Growth Management Planning Council 1997) as part of their long range planning process. The most recent residential land capacity analysis, with capacity estimates for 1997 (King County 2000), indicate that there is adequate land for 120,054 single-family residential units and 197,685 multifamily units. During the period

from 1997 to 2020, the projected demand for single-family units is 112,754 and multifamily units 144,547. This indicates that the growths forecast are generally correct and that the study area can absorb the growth. Some of the capacity constraint may be relieved by redevelopment of some areas at higher densities or matching the densities where properties are currently underutilized. The importance of the small gap between the supply and demand for residential units is that the areas where residential development will take place over the next 20 years will be relatively similar, no matter what transportation improvements are made. Unless local plans are modified and revisions to zoning take place, there will be few options for diverse residential land use patterns. Residential land availability is substantially greater in the other three counties in the region.

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5. CHANGE IN PRESSURES OF FORECASTED GROWTH

This section presents the results of the PSRC modeling, based on regional forecast, by alternatives. It illustrates the change in pressures on the land use patterns, by the different levels of accessibility per alternative.

The No Action Alternative is reflective of the existing projects (Figure 5.1) that are funded or in the pipeline, and is use as the baseline alternative for comparison purposes. Alternative 1 through 4 do not generate secondary or cumulative impacts, as the growth in employment and households are projected under the PSRC VISION 2020 plans and associated modeling numbers.

Figures 5.2 and 5.3 indicate the change in pressures that would take place by 2020, with the No Action alternative elements. The employment pressures within the study area occurs up and down the I-405 corridor, throughout Seattle, the Sammamish Plateau, Kent Valley, Pierce County, North Bend, and Snoqualmie. The household pressures are to the outside of the UGA in south Snohomish County, east King County, and northwest Pierce County.

Despite a spill over in the pressures outside of the UGA, there is still noticeable pressures (Figure 5.2 and 5.3) which would occur within the areas of designated urban centers. The designated urban centers, which will receive the highest level of employment, are Everett, Lynnwood, Redmond, Bellevue, Tukwila/South Center, Kent, SeaTac, Auburn, and Federal Way

The designated urban centers, which will receive the highest level of households, are Lynnwood, Redmond, Bellevue, Tukwila/South Center, SeaTac, Kent, Federal Way, and Puyallup.

Under the No Action Alternative there is pressure for the PSRC forecasted growth to move outside the UGA boundaries in the region. Those pressures can only be roughly estimated, since boundaries for FAZs and UGA do not correspond. An employment increase of roughly 17,000 is projected to take place outside the UGA boundary from 2000 to 2020. More importantly, the number of households outside UGA boundaries is expected to increase by almost 63,000. Again, even if as much as half of the growth is discounted due to boundary discrepancies, the pressures on land use outside of the UGA could be significant. Approximately half of the growth pressures in employment and households outside the UGA's is expected to take place in FAZs adjacent to or east of the study area.

Table 5.1 shows current and projected population, employment and households out to 2020 for the relevant geographic areas. This baseline scenario is the worst case, and reveals the PSRC forecasted impacts in the region. As this report will demonstrate, the action alternatives of I-405 do not have greater growth pressures than projected by the model for the No Action Alternative.

While there is the capacity to handle the projected growth in the region, the objective is to prevent the spillover or continued pattern of growth outside of the UGA.

Figure 5.4 shows the projects under the Alternative One scenario, within the corridor study area. Figure 5.5 shows the change in employment between the No Action Alternative by FAZs at 2020 and Alternative 1. The Employment pressures show up at the edges of the corridor into the I-405 corridor, along which the new HCT systems and TDM strategies will have some effects, and to SR 167.

Table 5.1: No Action Alternative Changes in Employment and Households

	Employment				Households			
	2000 (a)	2020 (b)	Change (b)-(a)	Percent Change 2000-2020	2000 (a)	2020 (b)	Change (b)-(a)	Percent Change 2000-2020
King County	1,180,564	1,474,469	293,905	24.9	741,167	967,180	226,013	30.5
Kitsap County	90,962	120,954	29,992	33.0	96,257	137,421	41,164	42.8
Pierce County	294,393	365,085	70,692	24.0	272,835	348,078	75,243	27.6
Snohomish Co.	233,289	300,568	67,279	28.8	227,522	334,335	106,813	46.9
Regional Total	1,799,208	2,261,076	461,868	25.7	1,337,781	1,787,014	449,233	33.6
Study Area	**447,936**	**576,335**	**128,399**	**28.7**	**270,037**	**360,603**	**90,566**	**33.5**

Table 5.2: No Action Alternative Substantial Areas of Increase in Employment and Households

Regional Jurisdictions	Local Jurisdiction with employment growth @ 2020 over 3000 employees	Local Jurisdiction with household growth @ 2020 over 3000 units.
Snohomish County	Everett and Lynnwood	Lynnwood, Mill Creek, Mukilteo
King County	Kirkland, Redmond, Bellevue, Issaquah, Newcastle, Renton, Tukwila, SeaTac, Kent, Auburn, and Federal Way	Woodinville, Redmond, Carnation, Bellevue, Issaquah, Tukwila, SeaTac, Kent, Auburn, Covington, Federal Way
Pierce County	Algona, Pacific, Tacoma, Lakewood, Olympia	Puyallup, Algona, Pacific, Bonney Lake, Sumner, Lakewood

Figure 5.6 shows the change in household between the No Action Alternative by FAZs at 2020 and Alternative 1. On a sub-regional level, Alternative 1 changes the areas of pressures for employment and housing, generally, into the Eastgate, Factoria, Kent, Kirkland, Lynnwood, and Redmond areas. The Household pressures could be towards the HCT stations due to increased accessibility, coupled with the station area planning required under the Sound Transit – Sound Move program. This trend could emerge as the regional and local plans call for transit supportive land uses and there will be available redevelopment pads at the HCT stations. This is further reinforced by Sound Transit's station area planning for light rail, which also can be utilized by King County and the local jurisdictions for Transit Orient Development standards at all HCT stations (bus or light rail).

The overall factors causing this change in pressures are the I-405 accessibility improvements and introduction of new HCT systems and TDM strategies (Described in Appendix A, *Major Elements of Alternatives*). The increase accessibility coupled with the TDM strategies, which could include pricing programs, and the implementation of HCT are likely to encourage the location of new employment near transit stations. With an increase in employment and household near a transportation mode, there could be an acceleration of transitioning single occupancy vehicles (SOV) to high-occupancy vehicles (HOV) trips. The key objectives of the HCT and TDM strategies are to reduce SOV-vehicle miles traveled (VMT). This alternative's primary focus is on the HCT element and not the existing SOV congestion problem. Therefore, the alternative will not prevent some of the pressures that exist in the No Action Alternative projections.

Legend: No Action Alternative Projects with Current Land Use within the Study Area

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative would be implemented as part of each action alternative.

Current Land Use
- Forest
- Open Space
- Agriculture
- Commercial
- Industrial
- Residential
- Government
- Right of way
- Mixed
- Other land use (inside UGA)
- Undefined

Mill Creek
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Bothell
Kenmore
Shoreline
Lake Forest Park
Simonds Rd NE
Kirkland
Redmond
NE 128th St
Lake Washington
Union Bay
Lake Union
Hunts Point
Yarrow Point
Clyde Hill
Medina
NE 8th St
Bellevue
148th Ave SE
Redmond Fall City Rd
Lake Sammamish
Seattle
Beaux Arts
Mercer Island
Duwamish River
Newcastle
Coal Creek Pky SE
Issaquah
Sammamish
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
68th Ave
132nd Ave SE
SE Petrovitsky Rd
Kent
Des Moines
Covington
Maple Valley
Auburn
Federal Way

No Action Projects with Current Land Use within the Study Area

Figure No. 5.1

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Legend: Change in Employment from 2000 to 2020 from the No Action Alternative

Employment Change in FAZ
- < 500
- 500 - 999
- 1000 - 1999
- 2000 - 2999
- 3000 - 3999
- > 3999
- Urban Growth Area

- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

4 0 4 8 Miles

SNOHOMISH
KING

Lake Washington
Lake Sammamish

Everett
Mill Creek
Lynnwood
Edmonds
Mountlake Terrace
Brier
Bothell
Kenmore
Woodinville
Shoreline
Lake Forest Park
Kirkland
Redmond
Bellevue
Mercer Island
Sammamish
Duvall
Sultan
Monroe
Snohomish
Seattle
Renton
Burien
Normandy Park
SeaTac
Des Moines
Kent
Auburn
Federal Way
Covington
Maple Valley
Black Diamond
Tacoma
Milton
Edgewood
Puyallup
Sumner
Lake Tapps
Buckley
Enumclaw
Carnation
Issaquah

5 9 90 167 202 203 405 515 516 518 520 522 524 527 900

NE 8th St
148th Ave SE
SE 128th St
68th Ave
132nd Ave SE
Redmond-Fall City Rd
Simonds Rd NE
SR-9 SE

Figure No. 5.2

Change in Employment from 2000 to 2020 from the No Action Alternative

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Legend: Change in Households from 2000 to 2020 for the No Action Alternative

Household Change in FAZ

- < 500
- 500 - 999
- 1000 - 1999
- 2000 - 2999
- 3000 - 3999
- > 3999

Urban Growth Area

Study Area Boundary

County Boundaries

Highways

Roadways

Railways

N

3 0 3 6 Miles

Change in Households from 2000 to 2020 for the No Action Alternative

Figure No. 5.3

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Legend: Alternative One Projects with Current Land Use within the Study Area

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (Not indicated if figure) would be implemented as part of each action alternative.

Current Land Use
- Forest
- Open Space
- Agriculture
- Commercial
- Industrial
- Residential
- Government
- Right of way
- Mixed
- Other land use (inside UGA)
- Undefined

Mill Creek
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Bothell
Kenmore
Shoreline
Lake Forest Park
Simonds Rd NE
Kirkland
Redmond
NE 128th St
Redmond Fall City Rd
Lake Washington
Union Bay
Lake Union
Hunts Point
Yarrow Point
Clyde Hill
Medina
NE 8th St
Bellevue
Lake Sammamish
148th Ave SE
Seattle
Beaux Arts
Mercer Island
Sammamish
Duwamish River
Coal Creek Pky SE
Newcastle
Issaquah
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Maple Valley
Covington
Auburn
Federal Way

Alternative One Projects with Current Land Use within the Study Area

Figure No. 5.4

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Legend: Change in Employment for Alternative One from the No Action Alternative

Employment Change in FAZ
- < 249
- -249 to -51
- -50 to 50
- 51 to 249
- 250 to 499
- > 500

- Urban Growth Area
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

2 0 2 4 6 Miles

SNOHOMISH
KING

Everett
Mill Creek
Lynnwood
Edmonds
Mountlake Terrace
Brier
Bothell
Woodway
Kenmore
Shoreline
Lake Forest Park
Woodinville
Duvall
Redmond
Kirkland
Lake Washington
Clyde Hill
Medina
Bellevue
Beaux Arts
Mercer Island
Sammamish
Issaquah
Newcastle
Tukwila
Renton
Burien
Normandy Park
SeaTac
Des Moines
Kent
Auburn
Federal Way
Covington
Maple Valley
Black Diamond
Enumclaw
Buckley
Tacoma
Milton
Edgewood
Puyallup
Sumner
Bonney Lake
South Prairie
Orting
Sultan
Monroe
Snohomish
Carnation
North Bend
Snoqualmie
Skykomish
Gold Bar
Index
Baring
Startup
Granite Falls
Arlington
Darrington
Oso
Coupeville
Langley
Clinton
Freeland
Greenbank
Oak Harbor
Stanwood
Camano Island
Marysville
Tulalip
Lake Stevens
Granite Falls
Arlington
Darrington
Oso

Simonds Rd NE
NE 8th St
148th Ave SE
SE 128th St
132nd Ave SE
68th Ave S
Redmond Fall City Rd
SR 9 SE
Gold Creek Pkwy SE
Petrovitsky Rd

5 405 90 520 522 524 527 9 202 203 900 169 167 515 516 18

Change in Employment for Alternative One from the No Action Alternative

Figure No. 5.5

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Legend: Change In Households for Alternative One from the No Action Alternative

Household Change in FAZ

- < -249
- -249 to -51
- -50 to 50
- 51 to 249
- 250 to 499
- > 500

Urban Growth Area

- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

2 0 2 4 Miles

SNOHOMISH

KING

Everett
Mill Creek
Monroe
Lynnwood
Edmonds
Mountlake Terrace
Woodway
Brier
Bothell
Shoreline
Kenmore
Lake Forest Park
Woodinville
Duvall
Kirkland
Redmond
Lake Washington
Clyde Hill
Medina
Bellevue
Lake Sammamish
Beaux Arts
Mercer Island
Sammamish
Issaquah
Newcastle
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
Des Moines
Kent
Maple Valley
Covington
Auburn
Federal Way
Black Diamond
Tacoma
Milton
Edgewood
Fircrest
Puyallup
Sumner
Bonney Lake
Enumclaw
Buckley

5 405 90 9 99 509 167 169 18 515 516 520 522 524 527 900 202 203

Simonds Rd NE
SR 9 SE
NE 8th St
148th Ave SE
Coal Creek Pkwy SE
Redmond Fall City Rd
Petrovitsky Rd
68th Ave
132nd Ave SE

Change in Households for Alternative One from the No Action Alternative

Figure No. 5.6

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Table 5.3: Alternative 1 Changes in Employment and Housing from the No Action Alternative

	2020 Employment				2020 Households			
	No Action (a)	Alternative 1 (b)	Change (a) – (b)	Percent Change From No Action	No Action (a)	Alternative 1 (b)	Change (a) – (b)	Percent Change From No-Action
King County	1,474,469	1,471,969	2,500	-0.2	967,180	965,682	1,498	-0.2
Kitsap County	120,954	120,921	33	0.0	137,421	137,543	-122	0.1
Pierce County	365,085	364,995	90	0.0	348,078	348,063	15	0.0
Snohomish Co.	300,568	303,204	-2,636	0.9	334,335	335,855	-1,520	0.5
Study Area	576,335	575,882	-453	-0.1	360,603	360,573	-30	0.0

Figure 5.7 shows the projects under the Alternative 2 scenario, within the corridor study area. Figure 5.8 shows the change in pressures on employment between the No Action Alternative by FAZs at 2020 and Alternative 2. Alternative 2 shows a change in the pressures of employment growth out of Seattle, Pierce County, and to a lesser degree, Kitsap County. The change in pressure in employment is towards the northern and southern core area of the I-405 corridor. Specifically, there is a change in pressure of projected growth for the Redmond Area, the Duvall UGA, and the Kent Valley area. Alternative 2, in relation to the No Action Alternative, changes the pressures on the expected growth of employment outside of the UGA, pulling it back into the UGA area and into some of the Urban Centers.

Table 5.4: Alternative 2 Changes in Employment and Housing from the No Action Alternative

	2020 Employment				2020 Households			
	No Action (a)	Alternative 2 (b)	Change (a) – (b)	Percent Change From No Action	No Action (a)	Alternative 2 (b)	Change (a) – (b)	Percent Change From No-Action
King County	1,474,469	1,473,785	684	0.0	967,180	966,821	359	0.0
Kitsap County	120,954	120,068	886	-0.7	137,421	135,956	1,465	-1.1
Pierce County	365,085	363,894	1,191	-0.3	348,078	347,789	289	-0.1
Snohomish Co.	300,568	303,343	-2,775	0.9	334,335	336,574	-2,239	0.7
Study Area	576,335	579,866	3,351	0.6	360,603	364,554	3,951	1.1

Household patterns are not notably different from the overall pattern in Alternative 1, yet Alternative 2 does change the pressure of household growth into the Mill Creek, Lynnwood and Bothell area in the North, and into Federal Way and Kent area to the South. Figure 5.9 shows the change in household between the No Action Alternative by FAZs at 2020 and Alternative 2. Alternative 2 household growth, has a change in pressure in South Snohomish County, Redmond, Kirkland, Kent, Auburn, and Federal Way. It could be argued that there are Urban Centers (Canyon Park, Lynnwood, SeaTac, Kent, and Federal Way) that can absorb the growth. Alternative 2 changes the pressures of the expected growth of households outside of the UGA to a greater degree than Alternative 1.

Regionally, Alternative 2 reflects more of a change in pressures for employment and household growth (2,000 +/- jobs and 1,200 +/- households) in the I-405 corridor area

than the No Action Alternative. Alternative 2 also redirects the pressures of growth from outside the UGA to the I-405 corridor.

As noted in the Methodology (Section 3), the I-405 project pressures the forecasted growth within the I-405 corridor study area, it does not substantially increase the growth. The Urban Centers and the HCT stations should become focal points for growth in employment and households, resulting in pressure to continue the Transit Oriented Development (TOD) and Urban Center zoning goals of the region at the local levels.

Table 5.5: Alternative 3 Changes in Employment and Housing from the No Action Alternative

	2020 Employment				2020 Households			
	No Action (a)	Alternative 3 (b)	Change (a) – (b)	Percentage Change From No Action	No Action (a)	Alternative 3 (b)	Change (a) – (b)	Percent Change From No Action
King County	1,474,469	1,474,905	-436	0.0	967,180	967,883	-703	0.1
Kitsap County	120,954	119,289	1,665	-1.4	137,421	134,539	2,882	-2.1
Pierce County	365,085	363,257	1,828	-0.5	348,078	346,729	1,349	-0.4
Snohomish Co.	300,568	303,650	-3,082	1.0	334,335	338,008	-3,673	1.1
Study Area	576,335	582,455	6,120	1.1	360,603	367,600	6,997	1.9

Figure 5.10 shows the projects under the Alternative 3 scenario, within the corridor study area. Figure 5.11 shows the change in employment for each county and region between the No Action Alternative and Alternative 3. Compared to the No Action Alternative, employment growth experiences a change in pressure into the FAZs north and south of the central part of the study area.

Figure 5.12 shows the change in households from the No Action Alternative. The change in pressures on growth are similar to Alternative 2, but with slightly more pressure on the growth pattern for a linear regional pattern. The differences in accessibility from the No Action Alternative show a change in pressure of the growth into the northern and southern ends of the I-405 corridor.

Alternative 3 is similar as Alternative 2, in that the urban centers and the HCT stations could absorb the growth in employment and households, resulting in pressure to continue the Transit Orient Development (TOD) and urban center zoning goals of the region at the local levels.

At the regional level, Alternative 3 would change the pressure of employment and households growth, 1,900 and 950 respectively, from areas outside the UGA boundaries to inside UGAs. The same change in pressure from outside to inside the UGA was found for those FAZs near the study area. These FAZs, near the study area, include Duvall, North Bend, Enumclaw, Woodinville, Carnation, Bear Creek, and Black Diamond. The change in pressures for growth associated with Alternative 3, compared to the No Action Alternative, suggests that it may result in future lessening of growth pressures on lands outside the UGA.

There are two areas (Kirkland/Redmond and Newcastle/Renton/Kent) within the study area that shows a change in growth pressure in employment and households as seen under Alternative 3 (Figures 5.11 and 5.12). The fact that concentrations of both employment and household growth in the study area emerge in Alternative 3 is an important trend; it suggests

that the transportation improvements are a form of mitigation and can be used to change the growth pressures within the UGAs. This alternative would provide the region an actual positive "tool" that implements many policies that will create the connectivity, density, and TOD that is needed to deal with growth impacts.

Alternative 4, as is shown in Table 5.6, changes the pressures on growth in the I-405 corridor relative to the No Action Alternative.

Table 5.6: Alternative 4 Changes in Employment and Housing from the No Action Alternative

	2020 Employment				2020 Households			
	No Action (a)	Alternative 4 (b)	Change (a) – (b)	Percent Change From No Action	No Action (a)	Alternative 4 (b)	Change (a) – (b)	Percent Change From No Action
King County	1,474,469	1,474,966	-497	0.0	967,180	966,953	227	0.0
Kitsap County	120,954	119,076	1,878	-1.6	137,421	134,410	3,011	-2.2
Pierce County	365,085	362,941	2,144	-0.6	348,078	346,376	1,702	-0.5
Snohomish Co.	300,568	304,111	-3,543	1.2	334,335	339,399	-5,064	1.5
Study Area	576,335	583,044	6,709	1.2	360,603	368,218	7,615	2.1

Figure 5.13 shows the projects under the Alternative 4 scenario, within the corridor study area. Figure 5.14 shows the change in pressure on employment growth between the No Action Alternative and Alternative 4. There is a change in pressure on employment in the Woodinville, Kirkland, and Renton/Kent Valley area due to increased accessibility. Alternative 4 results in less employment outside of the UGA, reflected in Alternative 1.

Figure 5.15 shows the change in pressure on household growth between the No Action Alternative and Alternative 4. Household growth does experience a change in pressure on growth in the areas of the study area compared to the No Action Alternative, but with a re-emergence of some growth outside of the UGA.

Alternative 4 has the greatest change in pressures on employment and households from the No Action Alternative, and there appears to be some changes in land use pattern that could be substantial. The change in growth pressures associated with Alternative 4, compared to the No Action Alternative, suggests that it continue the overall pattern of lessening growth pressures on lands outside the UGA, but only to a degree. While it may lessen the growth pressures, it also allows for the growth to become spread out along the entire corridor, such a change in pressure could be as a result of the expressway component. The change in growth pressures outside of the UGA is not consistent with VISION 2020 and King and Snohomish County - County-Wide Planning Policies.

Both employment and household patterns would have a linear affect on the corridor, and specifically Southern Snohomish County, the East Side of Lake Sammamish and into the Kent/Auburn Valley. Alternative 4 also begins to lead to a re-emergence of growth pressures outside of the UGA. This would suggest that the transportation improvements could be used to change the growth pressures; however, there is a point where the accessibility allows too much growth to move outside of the UGAs.

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Legend: Alternative Two Projects with Current Land Use within the Study Area

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (Not indicated if figure) would be implemented as part of each action alternative.

Current Land Use
- Forest
- Open Space
- Agriculture
- Commercial
- Industrial
- Residential
- Government
- Right of way
- Mixed
- Other land use (inside UGA)
- Undefined

Mill Creek
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Bothell
Kenmore
Shoreline
Lake Forest Park
Simonds Rd NE
Kirkland
Redmond
NE 128th St
Lake Washington
Union Bay
Lake Union
Hunts Point
Yarrow Point
Clyde Hill
Medina
NE 8th St
Bellevue
Lake Sammamish
Redmond Fall City Rd
148th Ave SE
Beaux Arts
Mercer Island
Seattle
Duwamish River
Coal Creek Pky SE
Newcastle
Issaquah
Sammamish
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Covington
Maple Valley
Auburn
Federal Way

Alternative Two Projects with Current Land Use within the Study Area

Figure No. 5.7

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Legend: Change in Employment for Alt. 2 from the No Action Alt.

Employment Change in FAZ

- < 249
- -249 to -51
- -50 to 50
- 51 to 249
- 250 to 499
- > 500

- Urban Growth Area
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

2 0 2 4 6 Miles

SNOHOMISH

KING

Change in Employment for Alternative Two the No Action Alternative

Figure No. 5.8

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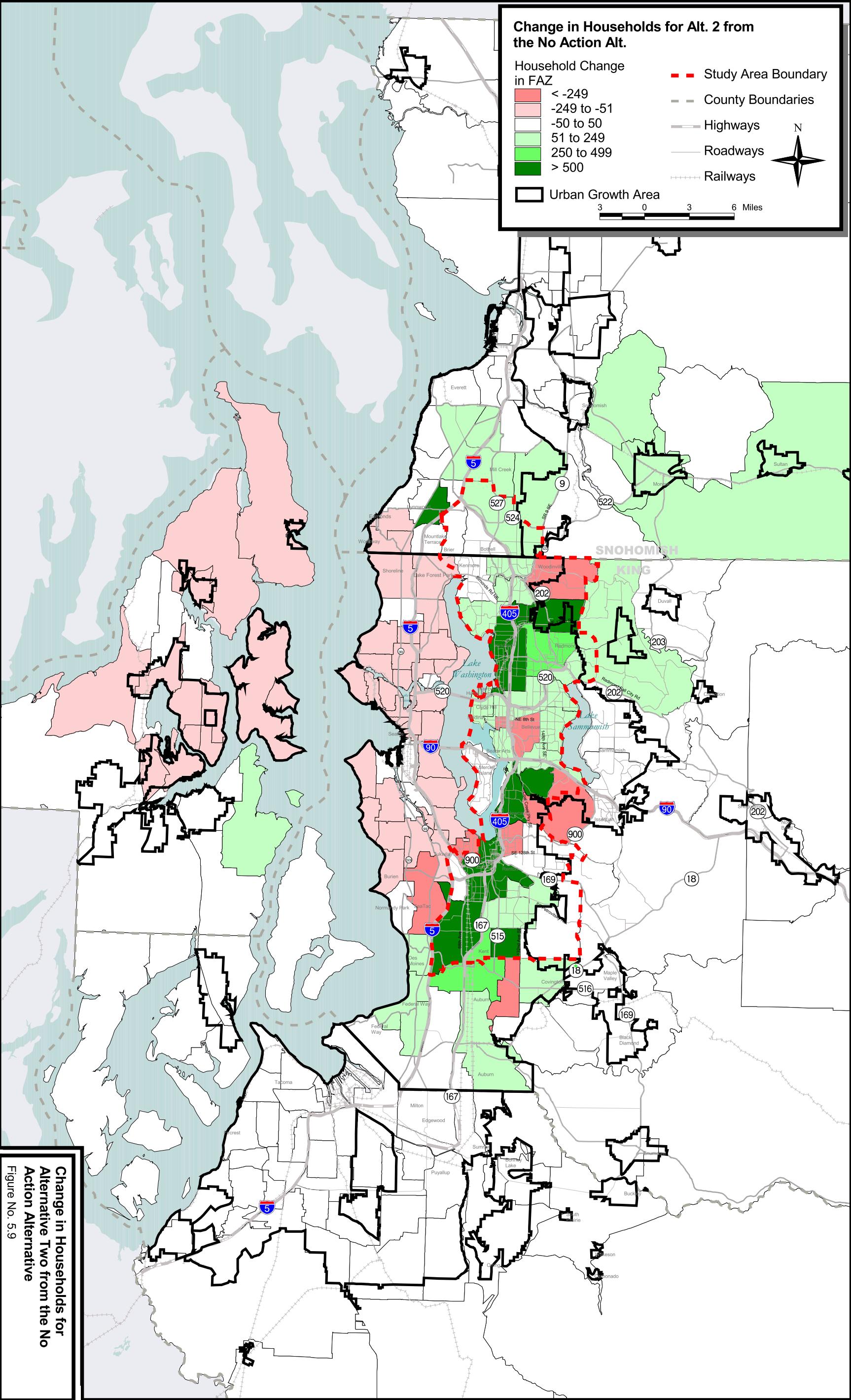

Change in Households for Alternative Two from the No Action Alternative

Figure No. 5.9

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Legend: Alternative Three Projects with Current Land Use within the Study Area

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (Not indicated if figure) would be implemented as part of each action alternative.

Current Land Use
- Forest
- Open Space
- Agriculture
- Commercial
- Industrial
- Residential
- Government
- Right of way
- Mixed
- Other land use (inside UGA)
- Undefined

Mill Creek
Lynnwood
Edmonds
Mountlake Terrace
Woodway
Brier
Bothell
Kenmore
Shoreline
Lake Forest Park
Simonds Rd NE
Kirkland
Redmond
NE 128th St
Lake Washington
Union Bay
Lake Union
Hunts Point
Yarrow Point
Clyde Hill
Medina
NE 8th St
Bellevue
Lake Sammamish
Redmond Fall City Rd
148th Ave SE
Seattle
Beaux Arts
Mercer Island
Duwamish River
Coal Creek Pky SE
Newcastle
Issaquah
Sammamish
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Covington
Maple Valley
Auburn
Federal Way

Alternative Three Projects with Current Land Use within the Study Area

Figure No. 5.10

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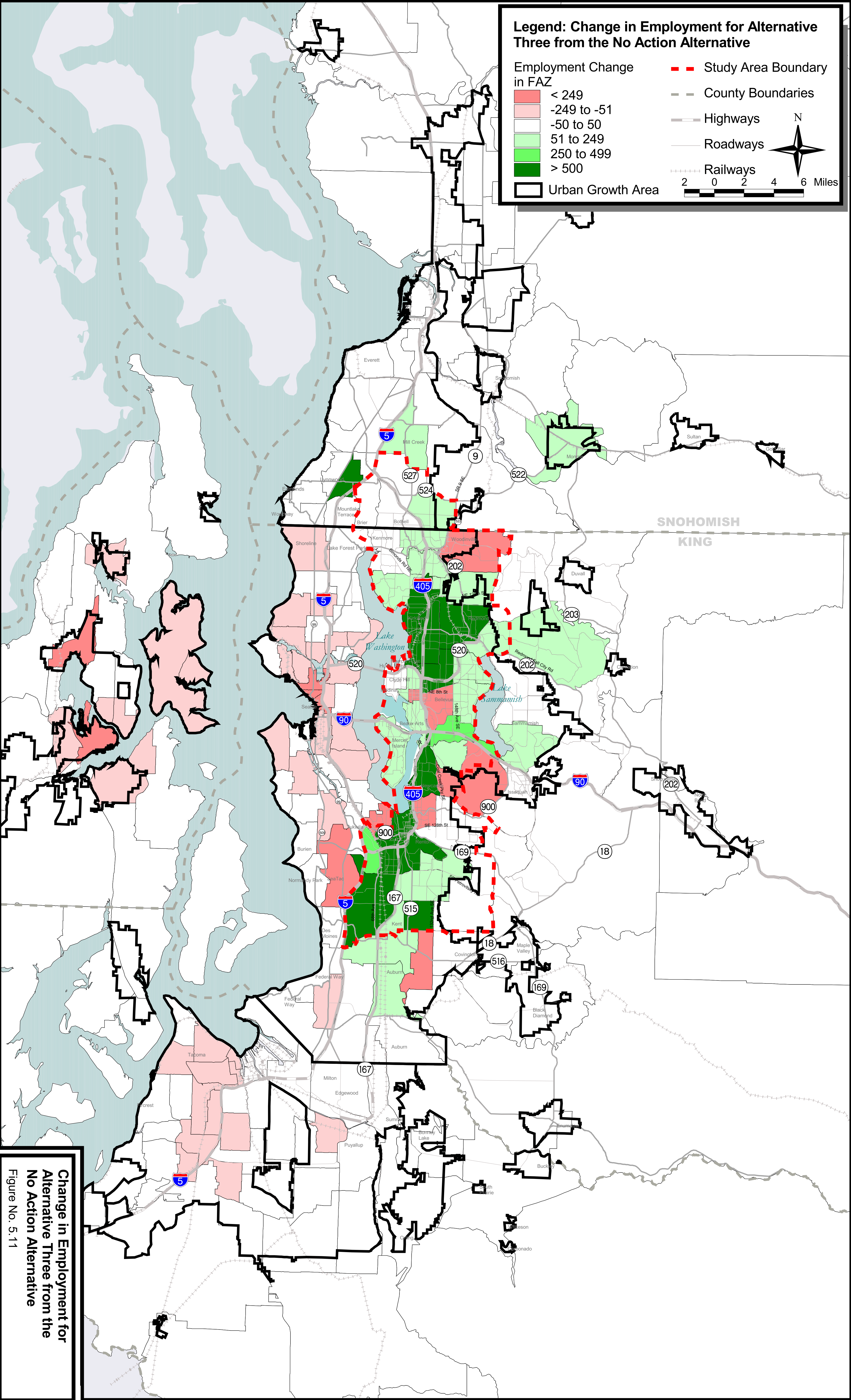
Legend: Change in Employment for Alternative Three from the No Action Alternative
Employment Change in FAZ
< 249
-249 to -51
-50 to 50
51 to 249
250 to 499
> 500
Urban Growth Area
Study Area Boundary
County Boundaries
Highways
Roadways
Railways
N
2 0 2 4 6 Miles
SNOHOMISH
KING
Everett
Snohomish
Mill Creek
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Bothell
Monroe
Sultan
Gold Bar
Kenmore
Shoreline
Lake Forest Park
Woodinville
Duvall
Simonds Rd NE
Kirkland
Redmond
Lake Washington
Clyde Hill
Medina
NE 8th St
Bellevue
Beaux Arts
Mercer Island
Seattle
Lake Sammamish
Sammamish
148th Ave SE
Redmond-Fall City Rd
Carnation
Issaquah
Snoqualmie
North Bend
Coal Creek Pky SE
Newcastle
SE 128th St
Renton
Tukwila
Burien
Normandy Park
SeaTac
68th Ave
Kent
132nd Ave SE
SE Petrovitsky Rd
Des Moines
Covington
Maple Valley
Black Diamond
Federal Way
Auburn
Tacoma
Fircrest
Milton
Edgewood
Sumner
Puyallup
Bonney Lake
Enumclaw
Buckley
South Prairie
Wilkeson
Carbonado
Orting
SR 9 SE
5
9
18
90
167
169
202
203
405
509
515
516
520
522
524
527
900
99

Change in Employment for Alternative Three from the No Action Alternative

Figure No. 5.11

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Legend: Change in Households for Alternative Three from the No Action Alternative

Household Change in FAZ

- < -249
- -249 to -51
- -50 to 50
- 51 to 249
- 250 to 499
- > 500
- Urban Growth Area

- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

2 0 2 4 6 Miles

Change in Households for Alternative Three from the No Action Alternative

Figure No. 5.12

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Legend: Alternative Four Projects with Current Land Use within the Study Area

- Transit
- HOV
- Freeways
- Arterials
- Non-motorized
- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

1 0 1 2 3 Miles

Note: All projects contained in the No Action Alternative (Not indicated if figure) would be implemented as part of each action alternative.

Current Land Use
- Forest
- Open Space
- Agriculture
- Commercial
- Industrial
- Residential
- Government
- Right of way
- Mixed
- Other land use (inside UGA)
- Undefined

Mill Creek
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Bothell
Kenmore
Shoreline
Lake Forest Park
Simonds Rd NE
Kirkland
Redmond
NE 128th St
Redmond Fall City Rd
Lake Washington
Union Bay
Lake Union
Yarrow Point
Hunts Point
Clyde Hill
Medina
NE 8th St
Bellevue
Lake Sammamish
148th Ave SE
Seattle
Beaux Arts
Mercer Island
Duwamish River
Newcastle
Coal Creek Pky SE
Issaquah
Sammamish
Tukwila
SE 128th St
Renton
Burien
Normandy Park
SeaTac
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Kent
Des Moines
Covington
Maple Valley
Auburn
Federal Way

Alternative Four Projects with Current Land Use within the Study Area

Figure No. 5.13

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Legend: Change in Households for Alternative Four from the No Action Alternative

Employment Change in FAZ

- < 249
- -249 to -51
- -50 to 50
- 51 to 249
- 250 to 499
- > 500
- Urban Growth Area

- Study Area Boundary
- County Boundaries
- Highways
- Roadways
- Railways

N

2 0 2 4 6 Miles

SNOHOMISH
KING

Everett
Mill Creek
Lynnwood
Mountlake Terrace
Brier
Bothell
Kenmore
Woodinville
Shoreline
Lake Forest Park
Duvall
Sultan
Monroe
Lake Washington
Lake Sammamish
Bellevue
Redmond
Issaquah
Sammamish
Clyde Hill
Medina
Seattle
Beaux Arts
Mercer Island
Burien
Normandy Park
SeaTac
Tukwila
Renton
Kent
Des Moines
Auburn
Federal Way
Covington
Maple Valley
Black Diamond
Tacoma
Milton
Edgewood
Fife
Puyallup
Sumner
Buckley
Orting
Eatonville
McKenna
Roy
Steilacoom
Dupont
Lakewood
DuPont
Fircrest
University Place
Gig Harbor
Enumclaw
Algona
Pacific
Milton
Federal Way
Auburn
Kent
Renton
Bellevue
Redmond
Issaquah
Sammamish
Everett
Mill Creek
Lynnwood
Shoreline
Lake Forest Park
Kenmore
Woodinville
Bothell
Brier
Mountlake Terrace
Edmonds
Mukilteo
Snohomish
Sultan
Monroe
Duvall
Carnation
Lake Stevens
Marysville
Arlington
Stanwood
Granite Falls
Darrington
Oso
Gold Bar
Index
Concrete
Sedro-Woolley
Burlington
Mount Vernon
Bellingham
Blaine
Lynden
Ferndale
Sumas
Everson
Nooksack
Deming
Kendall
Wickersham
Maple Falls
Glacier
Acme
Van Zandt
Clearlake
Conway
La Conner
Anacortes
Oak Harbor
Coupeville
Langley
Clinton
Freeland
Greenbank
Camano Island
Stanwood
Arlington
Marysville
Tulalip
Lake Stevens
Granite Falls
Darrington
Oso
Gold Bar
Index
Concrete
Sedro-Woolley
Burlington
Mount Vernon
Bellingham
Blaine
Lynden
Ferndale
Sumas
Everson
Nooksack
Deming
Kendall
Wickersham
Maple Falls
Glacier
Acme
Van Zandt
Clearlake
Conway
La Conner
Anacortes
Oak Harbor
Coupeville
Langley
Clinton
Freeland
Greenbank
Camano Island

5 9 522 527 524 522 202 405 203 520 202 90 900 169 18 167 515 516 18 169 167 5 90 405 5 520 90 900 18 202

SR 99 SR 522 Snohomish River Bridge Pacific Highway S 148th Ave SE NE 8th St SE 128th St Redmond-Fall City Rd Sammamish River Trail Green River Trail

Change in Employment for Alternative Four from the No Action Alternative

Figure No. 5.14

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Legend: Change in Housefolds forAlternative Four from the No Action Alternative

Household Change in FAZ

- < -249
- -249 to -51
- -50 to 50
- 51 to 249
- 250 to 499
- > 500

Urban Growth Area

Study Area Boundary

County Boundaries

Highways

Roadways

Railways

N

2 0 2 4 6 Miles

Change in Households for Alternative Four from the No Action Alternative

Figure No. 5.15

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6. IMPACT ANALYSIS

■

6.1 No Action Alternative

6.1.1 Direct Impacts

Analysis of direct land use impacts (right-of-way acquisitions and displacements) is presented in the *I-405 Corridor Program Draft Right-of-Way and Displacements Expertise Report* (DEA, 2001). The direct impacts, for each alternative are briefly discussed in the following sections. This report acknowledges the potential for direct impacts on existing land uses; however, until the project-level design and environmental review are accomplished, the specific direct impacts cannot be known. The direct impacts of the No Action Alternative projects are, or will be, addressed in the environmental analysis, documentation, and review conducted for those projects.

The No Action Alternative includes 60 projects. Primarily programmed arterial improvements and the improvement of SR-167 and I-405 as the major improvement. Figure 5.1 shows No Action Alternative projects in relation to land use types within the corridor.

Some park-and-ride facilities and all of the proposed transit centers were not evaluated, since the locations of these projects have not yet been identified. Six of the No Action Alternative projects may cause disruption of existing or future land use patterns specifically outside of Urban Growth Area (UGA), which could result in potential substantial impacts.

There are direct impacts from the project elements (i.e. HOV-01 – I-90 HOV direct access to a park-and-ride at Eastgate) to the adjacent land uses. Those impacts are localized at the physical location and those impacts would be analyzed in greater detail at the specific project level. Table D.1, Appendix E, shows those types of land uses that would have localized impacts or may be affected.

6.1.2 Secondary Impacts

Secondary impacts are reasonably foreseeable effects of an action that occur later in time or are further removed in distance from the direct effects of the proposal. Generally, these effects are induced by the initial programmatic action. Programmatic secondary impacts are expected to be limited and unlikely for the I-405 Corridor Program for several reasons:

- All of the I-405 Corridor Program action alternatives are generally compatible with existing regional and local land use plans that have already addressed growth.
- A similar level of projected growth is expected to occur in the region, with or without the action alternatives.
- Transportation projects, similar to I-405, are frequently built in response to population and/or employment growth.
- The I-405 Corridor Program study area is experiencing a high rate of population growth and land development that is increasing travel demand and congestion.

Secondary effects may be more detectable during project-level environmental analysis. Therefore, the potential for secondary effects will be analyzed in the future project-level environmental analysis, documentation, and review.

6.1.3 Mitigation Measures

Because the action alternatives would generally support the concentration of employment and household growth within the UGA in support of adopted land use plans and policies, no further mitigation measures are required.

Figures 5.2 and 5.3 indicate the growth that would take place by 2020, with the No Action Alternative elements. The No Action Alternative impacts are the change in pressure for the forecasted growth throughout the three county area, there is growth projected in the designated urban centers, an existing HCT station, or future HCT station.

The employment within the study area occurs up and down the I-405 corridor, throughout Seattle, the Sammamish Plateau, Kent Valley, Pierce County, North Bend, and Snoqualmie. The household will continue to spill outside of the UGA in south Snohomish County, east King County, and northwest Pierce County.

Despite a spill over of growth outside of the UGA, there is still noticeable pressure for growth (Figure 5.2 and 5.3) which would occur within the areas of designated urban centers. The designated urban centers, which will receive the highest level of employment growth, are Everett, Lynnwood, Redmond, Bellevue, Tukwila/South Center, Kent, SeaTac, Auburn, and Federal Way

The designated urban centers, which will receive the highest level of household growth, are Lynnwood, Redmond, Bellevue, Tukwila/South Center, SeaTac, Kent, Federal Way, and Puyallup.

Under the No Action Alternative growth pattern there is substantial pressure for additional growth outside the UGA boundaries in the region. Impacts can only be roughly estimated, since boundaries for FAZs and UGA do not correspond. An employment increase of roughly 17,000 is projected to take place outside the UGA boundary from 2000 to 2020. More importantly, the number of households outside UGA boundaries is expected to increase by almost 63,000. Again, even if as much as half of the growth is discounted due to boundary discrepancies, the impact on land use outside of the UGA could be substantial. Approximately half of the growth in employment and households outside UGA's is expected to take place in FAZs adjacent to or east of the study area.

■

6.2 Alternative 1: High-Capacity Transit (HCT)/ Transportation Demand Management (TDM)

6.2.1 Direct Impacts

This alternative emphasizes reliance on (HCT) within the study area and substantial expansion of bus transit service. It also attempts to minimize new impervious surface from general-purpose transportation improvements by placing emphasis on non-physical solutions and transportation demand management (TDM) strategies. Figure 5.4 shows Alternative 1 projects in relation to land use types within the corridor.

Alternative 1 includes 109 projects ranging from basic improvements to I-405 to HCT. Many of the projects in Alternative 1 require purchase of land for new right-of-way. Forty-nine of the Alternative 1 projects may have some impacts during construction activities, which will be evaluated at a later date. The localized substantial direct impacts are generally limited to the I-405 improvement projects, arterial HOV improvements, future HCT stations, and Park-and-Rides (PR). Table D.2, Appendix E, shows the types of land uses that could experience direct impacts.

6.2.2 Secondary Impacts

See Section 6.1.2 of this expertise report.

6.2.3 Mitigation Measures

Similar to the No Action Alternative, mitigation for direct impacts of Alternative 1 on land use would likely include best management practices for the construction impacts, creation of buffers and open space for operational impacts, and focus on re-development opportunities. Alternative 1 re-focuses growth, which is also mitigation, as Sound Transit's regional infrastructures for reducing SOV trips is a mitigation on a regional level.

Another form of mitigation is the TDM elements within the Alternative. The TDM elements are important components for the I-405 project, as they are for the Trans-Lake Washington Project. The importance of both I-405 and Trans-Lake Project having similar TDM elements is the improvement of regional connectivity with adjacent transportation systems.

The five elements and objectives of the TDM program are Maximizing Vanpooling, Public Information, Education & Promotion Programs, Employer-Based Programs, Land Use as TDM and other Miscellaneous Programs.

■

6.3 Alternative 2: Mixed Mode with High-Capacity Transit/Transit Emphasis

6.3.1 Direct Impacts

This alternative emphasizes High-Capacity Transit through implementation of an overall HCT system and substantial expansion of bus transit service, similar to Alternative 1. It also emphasizes improved mobility for other travel modes by providing HOV and general-purpose roadway improvements on I-405 and connecting arterials. Figure 5.7 shows Alternative 2 projects in relation to land use types within the corridor.

Alternative 2 includes 162 projects ranging from basic improvements to I-405 to HCT and a number of arterial projects. Many of the projects in Alternative 2 require acquisition of land for new right-of-way, and 65 of the Alternative 2 projects may cause disruption of existing or future land use activities that may result in potential impacts. The localized substantial direct impacts are generally limited to the I-405 improvement projects, arterial HOV improvements, arterial projects, and Park-and-Rides (PR). Table D.3, Appendix E, details by projects the type of land use that could experience localized substantial impacts.

6.3.2 Secondary Impacts

See Section 6.1.2 of this expertise report.

6.3.3 Mitigation Measures

Similar to the No Action Alternative, mitigation for direct impacts of Alternative 2 on land use would likely include best management practices for the construction impacts, creation of buffers and open space for operational impacts, and focus on re-development.

■

6.4 Alternative 3: Mixed Mode Emphasis

6.4.1 Direct Impacts

This alternative emphasizes mobility improvements for all travel modes through implementation of an HCT system, substantial expansion of bus transit service, and substantial HOV and two general-purpose roadway improvements on I-405 and connecting arterials. Figure 5.10 shows alternative 3 projects in relation to land use types within the corridor.

Many of the projects in Alternative 3 require acquisition of land for new right-of-way and 57 of the Alternative 3 projects may support the focused growth needed for the local urban centers, as the re-focused employment and housing are, for the most part, within the UGA. The localized substantial direct impacts are generally limited to the I-405 improvement projects, arterial HOV improvements and Park-and-Rides (PR). The localized substantial direct impacts are generally limited to the I-405 improvement projects, arterial HOV improvements, arterial projects, and Park-and-Rides (PR). Table D.4, Appendix E, details by projects the type of land use that could experience localized substantial impacts.

6.4.2 Secondary Impacts

See Section 6.1.2 of this expertise report.

6.4.3 Mitigation Measures

Similar to the No Action Alternative, mitigation for direct impacts of Alternative 3 on land use would likely include best management practices for the construction impacts, creation of buffers and open space for operational impacts, and focus on re-development opportunities. This could be accomplished by continued urbanization within the designated urban centers and taking advantage of underutilized areas for greater densities.

Another form of mitigation is the TDM element within the Alternative. Which are a part of the I-405 corridor, and an element of the Trans-Lake Study. The TDM components are in all of the alternatives.

6.5 Alternative 4: General Capacity Emphasis

6.5.1 Direct Impacts

This alternative emphasizes general purpose and HOV capacity by providing one additional lane in each direction on I-405, along with a four-lane I-405 express roadway. Other general purpose and HOV roadway improvements on I-405 and connecting arterials also would be provided, similar to Alternative 3. Figure 5.13 shows alternative 4 projects in relation to land use types within the corridor.

Many of the projects in Alternative 4 require purchase of land for new right-of-way and 27 of 116 projects in Alternative 4 may cause disruption of existing or future land use activities that may result in potential substantial impacts. The localized substantial direct impacts are generally limited to the I-405 improvement projects, arterial HOV improvements and Park-and-Rides (PR). The localized substantial direct impacts are generally limited to the I-405 improvement projects, arterial HOV improvements, arterial projects, and Park-and-Rides (PR). Table D.5, Appendix E, details by projects the type of land use that could experience localized substantial impacts.

6.5.2 Secondary Impacts

See Section 6.1.2 of this expertise report.

6.5.3 Mitigation Measures

Similar to the No Action Alternative, mitigation for direct impacts of Alternative 4 on land use would likely include best management practices for the construction impacts, creation of buffers and open space for operational impacts, and focus on re-development opportunities in regards to the secondary impacts.

Secondary impacts could be mitigated by revisions, if necessary, to comprehensive plans and zoning that reorient growth to areas within UGA boundaries. That is not to say that the plans do not already reflect such a direction, but there could be a strengthening of the codes. Alternative 4 continues to provide opportunities to re-focus forecasted growth of population and employment within the study area.

At the same time, Alternative 4 could have a phased schedule that would bring the expressway on-line at a later date. The expressway may become a positive growth tool, given that implementation is over a span of 20 years, the UGA can be expected to move outward at appropriate times and that the expressway may not be built until it is actually needed. As an example, the HCT portion of this alternative could handle the growth until the expressway is required.

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7. COMPARISON OF ALTERNATIVES

By 2020, the four county regions are expected to grow by approximately 460,000 jobs and 450,000 people. This regional growth is projected to take place whether or not improvements are made to the I-405 corridor. While the location of existing jobs, households, and the effects of land use plans, are important factors in determining where growth pressures will occur. Accessibility within the region's transportation system is also a key factor.

Table 7.1 presents a comparison of the alternatives' impacts on the land use. All potential land use impacts are present under the No Action Alternative, and therefore the action alternatives could reduce overall impacts. All of the alternatives have some direct impacts, with the No Action Alternative and Alternative 4 having the greatest level of direct impacts, on land use. At this programmatic level, it is assumed that various measures, such as creating buffers, creation of open space, encouraging redevelopment opportunities, and adoption of focused transit supportive zoning, can be used to mitigate those direct impacts.

As noted in the No Action Alternative, secondary effects may be more detectable during project-level environmental review. Therefore, the potential for secondary effects will be analyzed in the future project-level environmental documentation.

The change in pressure on the land use patterns, of the PSRC forecasted growth, results in pressure on employment and households into the urban centers of the study area. The statistical increase or decrease of employment or households within a FAZ is not substantial in comparison to the overall growth forecast. The change in pressure in employment and household growth from outside UGA boundaries to inside UGAs is unlikely to have adverse land use impacts. Figures 5.1 and 5.2 show changes in employment and households from 2000 to 2020.

Alternative 1 changes the pressure of growth back into the corridor but does not necessarily bring substantial employment or housing into the I-405 study area. As noted in the description and analysis (Section 5), this alternative is limited primarily to the HCT emphasis and does not provide immediate solutions to the SOV congestion, or SOV behavior patterns of I-405 users.

Alternative 2 changes the pressure to pull the employment out of the rural areas and into the I-405 study area. This pattern continues to varying degrees, in Alternative 3 and 4. Alternative 2 pressures come about due to the increase in the arterial network, which could draw increased volumes onto the adjacent arterials.

Alternative 3 results in slightly greater shifts of employment and households into the UGAs. This alternative has the most viable combination of HCT and SOV elements. With the expansion of I-405 capacity, it draws the traffic from the arterials back to I-405. It begins to provide a regional accessible corridor, which still supports the PSRC forecasted growth, without substantial impacts to the rural areas. If we assume that the regional plans and local plans will continue to emphasize density and transit supportive land use in the Urban Centers, Alternative 3 could be an important catalyst to obtain regional goals.

Alternative 4, on the other hand, generates a greater pressure on employment/housing growth. Some of the PSRC forecasted growth begins to spill outside of the UGAs. The negative of Alternative 4 is that it provides an exceptional expressway component. The

expressway component could be too effective and counter to the regional objectives of focusing growth into the Urban Centers and UGAs.

The impacts of the action alternatives are not necessarily negative, as the change in pressures on growth is back into the UGA and designated urban centers. Alternatives 2 and 3 tend to establish change in pressure on positive urban growth and may reorient future growth to UGAs and bring about growth pressures away from rural areas. The change in growth pressures associated with these two alternatives appears to be most consistent with growth management policies aimed at concentrating growth in areas where infrastructure investments can be focused.

Table 7.1: Comparison of the Alternatives' Impacts on Land Use

Alternative	Direct Impacts
No Action Alternative	6 of the 60 projects with potential substantial impacts to land use
Alternative 1	49 of the 109 projects with potential localized substantial impacts to land use
Alternative 2	65 of the 162 projects with potential localized substantial impacts to land use
Alternative 3	57 of the 152 projects with potential substantial localized impacts to land use
Alternative 4	27 of the 116 projects with potential localized substantial impacts to land use

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APPENDIX A
Major Elements of Alternatives

Appendix A
I-405 CORRIDOR PROGRAM
MAJOR ELEMENTS OF ALTERNATIVES

1. TRANSPORTATION DEMAND MANAGEMENT

TDM Package Core Assumptions

- Existing TDM programs will continue (public & private sector)
- Existing public TDM programs will be expanded to meet new market demand
- Implementation of trip reduction targets will be supported by new interlocal or sub-regional agreements
- Strategies are flexible, monitored and adjusted as needed over time (includes tracking trends for Internet, e-commerce)
- Funding is provided for demonstration projects, plus some ongoing funding for new TDM strategies found effective

Focus of TDM Package

SOV and other trip reduction through the use of:

- Incentives
- Increasing access to alternative modes
- Public information, education and promotion
- Land use strategies

Strategies in the TDM Package

VANPOOLING

- Maximize vanpooling in the corridor (minimum of a five-fold increase)
  - Intensive marketing of vanpooling, including start-up subsidies
  - Use of new “value-added" incentives (e.g., frequent flyer miles for vanpoolers)
  - Creation of a revolving no-interest loan fund for purchasing vans
  - 50% fare subsidy
  - Provide sufficient infrastructure (e.g., small park & ride lots)
  - Owner-operated vanpool promotion

PUBLIC INFORMATION, EDUCATION & PROMOTION PROGRAMS

- Establish ongoing public education and awareness program specific to the corridor (focus on issues and transportation alternatives)
- Provide traveler information system(s), including interactive ridematch and transit information
- Provide personalized trip planning assistance, including for transit

Strategies in the TDM Package
EMPLOYER-BASED PROGRAMS • Increase work choices Telecommuting, flextime, compressed work schedules, multiple shifts Proximate commuting (assigning employees to work sites close to home) Incentives to employers to offer work choices (e.g., tax credits) • For current commuter trip reduction program – new incentives and resources to help CTR-affected employers obtain CTR goals (e.g., grants, tax credits, staff support) • Expanded CTR-like program aimed at smaller employers plus those larger ones not affected by CTR laws (non-regulatory, voluntary based) • Support development and core operations of transportation management associations (TMA) • Parking cash-out program incentives and financing
LAND USE AS TDM Compact, mixed-use, non-motorized and transit friendly (re)development in target areas (urban centers, suburban clusters, key arterials, transit station areas, transit centers, park-and-ride lots) • Transit-oriented development (TOD) • Code changes, streamlining processes, local connectivity retrofitting projects to support (re)development • Programs (code assistance, design review support) to help jurisdictions and developers implement compact (re)development • New parking management programs
OTHER MISCELLANEOUS TDM PROGRAMS Innovative transit and vanpool fare media, incentives, demonstrations, matching funds, etc. [e.g., area-wide "Smart Card" (FlexPass) programs for Eastgate, downtown Bellevue, north Renton industrial area, Bothell business parks, Redmond, downtown Kirkland, Tukwila] • Non-commute trips TDM programs (research and demonstrations) • Other miscellaneous incentives (local and state tax credit programs, developer incentives)

2. EXPANDED TDM PACKAGE

Overview

This major element will include the range of regional pricing actions being evaluated by the PSRC. The potential impacts of the following actions will be examined in the context of the I-405 Corridor:

- Region-wide congestion pricing (RCP);
- Fuel taxes (revenue = RCP);
- Fuel taxes (revenue = 50% RCP);

- Mileage charge (revenue = RCP);
- Parking charges;
- High occupancy toll lanes.

2. NEW TRANSIT EXPANSION BY 50% WITHIN STUDY AREA

Transit service levels would be increased by 25% compared to the current King County 6-year plan, assumed to be in place by 2007.

Transit service levels would be increased by 50% compared to the current King County 6-year plan, assumed to be in place by 2007.

3. DOUBLE TRANSIT SERVICE WITHIN STUDY AREA

Overview

Transit service levels would be doubled compared to the current King County 6-year plan, assumed to be in place by 2007. The effects of I-695 on short-term transit service have not been assumed. Transit service coverage and design would also be revised to more closely match travel patterns within the study area. These revisions could include more center-to-center movements, connections between neighborhoods and centers, and development of an appropriate 'grid' transit system within the study area.

4. PHYSICALLY SEPARATED HIGH-CAPACITY TRANSIT (HCT)

Description

A high-capacity transit solution would be designed for the I-405 corridor. The exact technology of this solution would be determined in later studies, but could include busway, light rail, monorail, or similar mode that could operate at speeds of up to 70 mph. The HCT alignment would generally follow the I-405, SR 520 and I-90 freeway corridors in existing freeway, arterial, or railroad right-of-way. The key characteristic of this solution would be that it would have a dedicated alignment, removing it from congestion-induced delays. Bus service would be reconfigured to provide maximum accessibility to the HCT system.

Alternatives 1 and 2 assume a full-scale HCT within the corridor, likely using some form of rail technology. Alternative 3 assumes a bus rapid transit (BRT) concept, building on the existing freeway HOV system.

High Capacity Transit		
Jurisdiction	**Project ID***	**Projects**
Tukwila & Renton	T.HCT-1	HCT- SeaTac to Renton CBD
Renton	T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)
Renton, Newcastle & Bellevue	T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria
Bell & Issaquah	T.HCT-4	HCT – Factoria to Issaquah

High Capacity Transit		
Bellevue	T.HCT-5	HCT – Factoria to Downtown Bellevue
Bell & Redmond	T.HCT-6	HCT – Bellevue to Redmond
Bell & Kirkland	T.HCT-7	HCT – Bellevue to Totem Lake
Kirk, King Co. & Woodinville	T.HCT-8	HCT – Totem Lake to Bothell
Bothell & Sno Co.	T.HCT-9	HCT – Bothell to Lynnwood

High Capacity Transit Stations	
Sea-Tac	Sea-Tac
Tukwila	Southcenter
Tukwila & Renton	Tukwila (Longacres)
Renton	Downtown Renton
Renton	North Renton
Renton	Port Quendall
Bellevue	Factoria
Bellevue	Bellevue Transit Center
Bellevue	Bellevue Library
Bell & Kirk	SR 520/Northup Way
Kirkland	Downtown Kirkland (NE 85th Street)
Kirkland	Totem Lake
Woodinville	NE 145th Street
Woodinville	Woodinville
Bothell	NE 195th Street
Bothell	Canyon Park
Snohomish County	164th Street SW (Ash Way)
Bellevue	Eastgate
Bellevue	Lakemont
Issaquah	Issaquah
Bellevue	132nd Avenue NE
Bellevue	148th Avenue NE
Redmond	Overlake (NE 40th Street)
Redmond	Redmond/Town Center
Redmond	Bear Creek
Mercer Island	Mercer Island

6. ADD ARTERIAL HOV AND TRANSIT PRIORITY

Overview

Create lanes, intersection queue jumps and signals that provide priority to HOVs and transit on major arterials in the study area.

Arterial HOV		
Bellevue	R.HOV-36	Coal Creek Pkwy I-405 to Forest Drive
Bellevue	R.HOV-37	NE 8th Street I-405 to 120th Ave NE
Kirkland, Redmond	R.HOV-38	NE 85th St Kirkland Way to 148th Ave NE
Kirkland	R.HOV-39	NE 116th 98th Ave NE to 124th Ave NE
Kirkland	R.HOV-40	NE 124th 100th Ave NE to 132 Ave NE
Bothell	R.HOV-41	SR 527 From SE 228th St to SR 524
Renton	R.HOV-43	SR 169 - SR 405 to Riverview Park vicinity - HOV/Transit Preferential treatment.
Renton	R.HOV-44	SW 27th St Corridor in Renton - Oaksdale Ave to SR 167
Redmond	R.HOV-47	Avondale Rd from Novelty Hill Road to Avondale Way Construct SB HOV lane
Renton, King Co	R.HOV-48	SW 43 St (SR 167 to 140 Ave SE)
Renton	R.HOV-49	Logan Ave N / N 6 St (S 3 St to Park Dr)
Renton	R.HOV-51	Park Dr - Sunset Blvd (Garden Ave to Duvall Ave NE)
Kenmore	R.HOV-53	68 Ave NE (Smds Rd to SR 522) - Construct NB HOV lane
Redmond	R.HOV-55	Willows Rd (Redmond Wy to NE 124 St)
Kirkland, Bell	R.HOV-56	Lake Wa Blvd (SR 520 to Yarrow Bay) - SB HOV lane
Kirkland	R.HOV-57	NE 68 St/NE 72 Pl (I-4405 Vicinity) – Que Bypass
Bellevue	R.HOV-60	Bellevue Way - I-90 to South Bellevue Park and Ride

7. HOV EXPRESS ON I-405 WITH DIRECT ACCESS RAMPS

Overview

Complete the series of ramps connecting arterials and freeways directly to HOV lanes on I-405. This allows carpools, vanpools and buses to use the HOV lanes without weaving across other traffic. HOV direct access ramps have already been designed by Sound Transit in downtown Bellevue and Kirkland, and design studies are starting for HOV ramps in downtown Renton.

HOV Interchange Ramps (Direct Access)		
Tukwila	R.HOV-25	SR 5 I/C @ Tukwila Fwy to Fwy HOV ramps,
Renton	R.HOV-26	SR 167 I/C Fwy to Fwy HOV ramps,
Bellevue	R.HOV-27	SR 90 I/C Fwy to Fwy HOV ramps,
Bellevue	R.HOV-28	SR 520 Fwy to Fwy HOV ramps,
Bothell	R.HOV-29	SR 522 Fwy to Fwy HOV Ramps
Sno. Co.	R.HOV-30	SR 5 I/C @ Swamp Creek Fwy HOV ramps.
Kirkland	R.HOV-61	NE 85th
ST	R.HOV-101	I-405 @ Lind – HOV Direct Access
Newcastle	R:HOV-65	112th St SE (In-Line Station)

Committed HOV Projects		
Bellevue	HOV-01	I-405 at NE 4th/6th/8th (Bellevue)/Construct new HOV direct access at NE 6th, Improve arterial capacity at NE 4th/8th interchanges
Bellevue	HOV-02	I-90 (Eastgate)/New I-90 HOV direct access connection to P&R
Renton	R.HOV-32	Between Sunset and SR-900 /Park Ave interchange in Renton
ST	R:HOV-66	I-405 at 128th St/HOV direct access improvements
Renton	R.HOV-33	NE 44th I/C - HOV Direct Access and Arterial Improvements(Assumes Port Quendall)
WSDOT	HOV-14	I-405 (I-5 Swamp Creek to SR 527)/Construct NB and SB HOV lanes total 6 lanes
Bothell	R.HOV-62	SR 522 Campus Access
Bothell	R.HOV-63	SR 527 Flyer Stop
ST	HOV-102	Woodinville Arterial Enhancements/HOV arterial enhancements

8. ADD PARK-AND-RIDE CAPACITY TO MEET DEMAND

Overview

Provides additional park-and-ride capacity at existing locations and creates selected new lots based on forecasted transit and carpool demand. The locations initially identified for expansion are listed below. These locations will be refined during the evaluation process.

Park and Rides		
Renton	T.PR-3	Renton East Highlands new Park and Ride
Tukwila & Renton	T.PR-6	Tukwila Commuter Rail (Longacres)
King County	T.PR-5	140th Ave SE and Petrovitsky Rd Vicinity
King County	T.PR-8	SR 169 and 140th WY SE
King County	T.PR-9	Petrovitsky Rd and 157th Ave SE
King County	T.PR-10	140th Ave SE and SE 192nd
King County	T.PR-11	SR 515 and SE 208th
Kent & Renton	T.PR-12	SR 167 and SW 43rd
Kent & Renton	T.PR-13	SR 167 and 84th Ave
Redmond	T.PR-17	Willows Rd @ NE 100th
Redmond	T.PR-18	SR 202 @ NE 100th
Bellevue & Kirkland	T.PR-20	South Kirkland
Redmond	T.PR-21	Overlake
Bellevue	T.PR-22	South Bellevue
Bellevue	T.PR-23	Newport (112th Ave. SE)
King County	T.PR-24	NE 160th/Brickyard Rd
Bothell	T.PR-25	Canyon Park (I-405 and SR 527)
Tukwila	T.PR-30	Tukwila
Kirkland	T.PR-31	Houghton
Kirkland	T.PR-32	Kingsgate
Medina	T.PR-33	Evergreen Point
Bellevue	T.PR-34	Wilburton
King County	T.PR-35	Lakemont
Redmond	T.PR-36	Redmond
Redmond	T.PR-37	Bear Creek
Bothell	T.PR-38	Bothell
Kenmore	T.PR-39	Northshore
Kenmore	T.PR-40	Kenmore
Woodinville	T.PR-41	Woodinville
Mercer Island	T.PR-42	Mercer Island
Bellevue	T.PR-43	Eastgate

9. ADD TRANSIT CENTER CAPACITY TO MEET DEMAND

Overview

Expand existing transit centers and create new transit centers to accommodate increased transit service. The specific locations for expansion and new centers will be identified during the evaluation process. Alternatives 1, 2, and 3 will require transit center capacity to accommodate a significant increase in transit service, at designated HCT stations, and at feeder bus connections. A partial listing is below.

Transit Center Capacity		
Renton	T.TC-6	Downtown Renton
Bellevue	T.TC-8	Downtown Bellevue
Redmond	T.TC-9	Overlake
Redmond	T.TC-10	Redmond/Town Center
Kirkland	T.TC-12	Downtown Kirkland
Kirkland	T.TC-14	Totem Lake

10. BASIC I-405 IMPROVEMENTS

Overview

This major element fixes existing bottlenecks and locations with safety deficiencies along I-405.

Basic I-405 Improvement Projects		
Jurisdiction	**Project ID***	**Projects**
Renton	R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane SB SR 169 to SR 167
Kirkland	R.BI.2	Continue NB climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th
Kirkland	R.BI.3	SB auxiliary Lane NE 124th to NE 85th
Bellevue	R.BI.4	I-90 / Coal Creek Interchange
Bothell, King Co, Kirkland	R.BI.5	SB SR 522 to 124th continue climbing lane as an auxiliary lane
Bothell	R.BI.6	NB auxiliary lane SR 522 to SR 527
Renton	R.BI.7	Kennydale Hill climbing lane - SR 900 to 44th - NB 900 to 30th, SB 44th - 30th
Bellevue	R.BI.8	I-90 to Bellevue SB HOV direct connection to I-90 west
Bellevue	R.BI.9	NB auxiliary lane I-90 to NE 8th
Bellevue	R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity
Renton	R.BI.14	NB Auxiliary Lane I-5 to SR 167
Various	R.FR-24	Improve interchange geometrics at all major truck routes (WB-20 Design Criteria)
WSDOT	R-55	I-405/SR 167 Interchange/Construct new southbound I-405-to-southbound SR 167 ramp modification.

11. ADD 2 GENERAL PURPOSE LANES EACH DIRECTION ON I-405

Add up to 2 general purpose lanes to I-405 through widening of the existing freeway. A design option is to create collector-distributor lanes in selected corridor segments (See Element 12).

12. PROVIDE COLLECTOR DISTRIBUTOR LANES ON I-405

Overview

Collector- Distributor lanes provide more time for traffic to safely enter or exit from roadway by providing lanes removed from general travel. This is being considered as a design option to handle the addition of one or two general purpose lanes in each direction along I-405 in certain sections. Collector-Distributor lanes have been included as parts of other elements.

13. ADD TWO EXPRESS LANES EACH DIRECTION ON I-405

Overview

This element consists of a four-lane express facility designed to operate with limited interchanges along the length of I-405. The express lanes would be physically separated from the rest of I-405 through the use of barriers. Certain segments could operate within the median of I-405, while other segments would need to be elevated, in tunnel, or on separate alignments.

The express lanes could operate as a general purpose facility or as a managed facility, such as a 'High Occupancy Toll (i.e. HOT) lane. Certain users could be allowed to use the express lanes for free, while other users could be allowed to 'buy-in' to available capacity. The capacity would be priced depending upon demand.

Express Lanes – 2 Lanes each Direction between Major Interchanges		
Jurisdiction	**Project ID**	**Projects**
Tukwila, Renton	R.TC-20	Add Express lanes - SR 5 Tukwila to SR 167
Renton	R.TC-21	Add Express lanes - SR 167 to SR 900 north Renton I/C
Renton, Newcastle, Bellevue	R.TC-22	Add Express lanes -SR 900 North Renton I/C to SR 90
Bellevue	R.TC-23	Add Express lanes - SR 90 to SR 520
Bellevue, Kirkland	R.TC-24	Add Express lanes - SR 520 to NE 70th
Kirkland	R.TC-25	Add Express lanes - NE 70th to NE 124th
Kirkland, King County, Bothell	R.TC-26	Add Express lanes - NE 124th to SR 522
Bothell	R.TC-27	Add Express lanes - SR 522 to SR 527
Bothell and Snohomish Co.	R.TC-29	SR 527 to vicinity of Damson Road
Renton	R.TC-28	Add Express lanes- on SR 167 north of 180th up to I-405

Express Lanes –Access Locations		
Snohomish Co	R.TC-30	Northern end to Express lanes - Between SR 527 and I-5
King Co/Kirkland	R.TC-31	Slip Ramp- South of NE 160th St
Kirkland	R.TC-32	Slip Ramp- South of NE 70th St
Bellevue, Newcastle	R.TC-33	Slip Ramp- South of Coal Creek Pkwy
Renton	R.TC-34	Interchange access location- SR 167

14. WIDEN SR 167 BY 1 LANE EACH DIRECTION TO KENT (STUDY AREA BOUNDARY)

Overview

SR 167 would be widened by one lane in each direction to accommodate additional demands due to growing demands and the effects of improvements at the I-405/SR 167 interchange. The widening is assumed to extend at least to the study area boundary in Kent. Alternative 3 will consider the potential to add a total of two lanes in each direction to SR 167 within 1 mile of I-405, due to the substantial capacity additions assumed for I-405. This element does not presume that SR 167 would be redesignated as I-405, although each of these improvements would be compatible with such a redesignation if it occurs.

16. IMPROVE CONNECTING FREEWAY CAPACITY TO I-405

Overview

Enhance the capacity of connecting freeways by one lane in each direction (for a distance of approximately ½ to 1 mile on both sides of I-405) to avoid bottlenecks at the connections to I-405.

Connecting Freeway Capacity (One Lane, Each Direction)		
Jurisdiction	**Project ID**	**Projects**
Tukwila	R.CF.1	SR 518 I-405 to SR 99/Airport Access
Bellevue	R.CF.3	I-90 South Bellevue to Eastgate
Bellevue	R.CF.4	SR 520 Bellevue Way to 148th Avenue NE
Bothell, Woodinville	R.CF.5	SR 522 Bothell to NE 195th
Snohomish Co, Lynnwood	R.CF.6	SR 525 I-405 to SR 99
Renton, Kent	R.CF.8	SR 167 I-405 to Study Area Boundary
Tukwila	R.CF.9	I-5 at Tukwila
Lynnwood	R.CF.10	I-5 at Swamp Creek – 196th to 164th

17. IMPLEMENT PLANNED ARTERIAL IMPROVEMENTS

Overview

This major element involves the implementation of several arterial improvements called for in local agency plans and the Eastside Transportation Program (ETP). The ETP has been an ongoing process by regional, county and local governments to coordinate transportation planning and funding in East King County. Many of the ETP projects have already been examined in detail by the agencies involved and have been determined to be effective in addressing a variety of transportation issues.

Eastside Transportation Projects - Committed Projects		
Jurisdiction	**Project ID**	**Projects**
Bellevue	R-08	NE 29th Pl (148th Ave NE to NE 24th St)/Construct new 2-lane road
Bellevue	R-101	150th Ave SE---Widen to 7 lanes from SE 36th to SE 38th; add turn lanes
KCDOT	R-40	Juanita-Woodinville Way (NE 145 St to 112th Ave NE) Widen to 5 lanes + CGS, walkway/pathway
KCDOT	R-47	NE 124 St (Willows Rd to SR 202)--- Widen to 4/5 lanes + CGS, bike facilities; traffic signal.
Kirkland	R-21	NE 120 St (Slater Ave to 124 Ave NE)--- Construct new 3-lane roadway with ped/bike facilities
Redmond	R-111	Willows Rd Corridor Improvements-- Channelization of Willows Rd/Redmond Way intersection and widening of Willows Rd from NE 116th to NE 124th
Redmond	R-26	NE 90 St (Willows Rd to SR 202)--- Construct new 4/5 lanes + bike facilities
Redmond	R-28	West Lake Sammamish Parkway (Leary Way to Bel-Red Rd)--- Widen to 4/5 lanes + CGS, bike lanes
Renton	R-36	Oakesdale Ave SW (SW 31st to SW 16th)--- Construct new 5 lane roadway with CGS
Snohomish Co.	R-10	SR 524 (24 St SW to SR 527)--- Widen to 4/5 lanes including sidewalks, bike lanes
Snohomish Co.	R-117	39th Ave SE Realignment at SR 524 and York Rd--- Construct 4-way intersection to replace 2 offset intersections
Bothell, Snohomish Co.	R.AC-21	120th NE/39th SE - NE 95th to Maltby Rd - 4/5 lanes including new connection
Woodinville	R-51	Woodinville-Snohomish Rd/140 Ave NE (NE 175 St to SR 522)--- Widen to 4/5 lanes + CGS, bike lanes
Woodinville/ WSDOT	R-25	SR 202 Corridor Improvements(East Lake Sammamish Pkwy to Sahalee Way)--- Widen to 3/5 lanes; intersection improvements with bike/ped facilities
KCDOT	R-39	140 Ave SE (SR 169 to SE 208 St)--- Widen to 5 lanes SR 169 to SE 196 St, widen for turn channels on SE 196. Combines 2 King County CIP projects. A major North-South arterial which serves the Soos Creek Plateau and Fairwood.

Eastside Transportation Projects - Planned Projects		
Jurisdiction	**ETP #**	**Projects**
Bellevue	R.PA-2	148 Ave SE (SE 24 St to SE 28 St) New SB lane from SE 24 St to the WB I-90 on-ramp (ETP 203)
Bothell	R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)
Bothell	R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)
KCDOT	R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)
KCDOT	R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)
KCDOT	R.PA-10	NE 132 St Extension (132 Ave NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)
Kenmore/KCDOT	R.PA-11	68 Ave NE (Simonds Rd to SR 522)--- Construct NB HOV lane total of 5/6 lanes (ETP 22)
Kirkland	R.PA-12	124 Ave NE (NE 85 St to Slater Rd NE)---- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with ped/bike facilities (ETP R-23)
Kirkland	R.PA-13	NE 132 St (100 Ave NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)
Kirkland	R.PA-14	NE 100 St (117 Ave NE to Slater Ave) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)
Newcastle	R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)
Redmond	R.PA-16	Redmond 148th Ave NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS; (ETP R-112)
Redmond	R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave NE arterial and new 72nd St arterial w/ bike/ped and CSG; widen Bear Creek Pkwy (ETP R-110)
Redmond	R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)
Renton	R.PA-19	Duvall Ave NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)
Renton	R.PA-20	Oakesdale Ave SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)
Renton	R.PA-21	Rainier Ave / Grady Way (intersection)-- Grade separation (ETP R-33)

Eastside Transportation Projects - Planned Projects		
Renton	R.PA-22	SW Grady Way (SR 167 to SR 515)-- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)
Renton	R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)
Renton/ KCDOT	R.PA-24	Soos Creek Regional Links --- Placeholder for Trans-Valley Study (ETP R-115)
Woodinville	R.PA-25	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St))-- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)
Woodinville	R.PA-26	SR202 Corridor Package (SR202/148th Ave & SR202/127th Place)--- Intersection improvements (ETP R-54)
WSDOT	R.PA-27	SR 520/SR 202 Interchange-- Complete interchange by constructing a new ramp and thru lane on 202 to SR 520 (ETP R-29)
WSDOT	R.PA-28	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)

18. EXPAND CAPACITY ON NORTH-SOUTH ARTERIALS

Overview

This element expands arterial capacity to provide connected north-south travel. This element would facilitate vehicular movement without requiring as many trips along I-405.

North-South Arterial Projects		
King Co	R.AC-2	138th Ave - Petrovitsky Rd to SR 169- Add 1 lane
King Co, Renton	R.AC-3	138th Ave SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St
Redmond	R.AC-15	Willows Rd- NE 90th St to NE 124th St- Add 1 lane each direction
King Co, Woodinville	R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes
Woodinville	R.AC-17	SR 202- NE 145th St to SR 522- widen to 5 lanes
Redmond, King County, Woodinville	R.AC-18	SR 202 - NE 90th to NE 145th
Bothell, Snohomish County, Mill Creek	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction
Bothell, Woodinville	R.AC-30	SR 202 connection across SR 522 to 120th
Tukwila	R.AC-35	SR 181- S 180th to S 200th
Tukwila	R.AC-36	SR 181- 144th to Strander Blvd.
Tukwila	R.AC-37	Southcenter Blvd - Tukwila Pky to Strander Blvd

19. UPGRADE ARTERIAL CONNECTIONS TO I-405

Overview

This element provides for upgrading arterial connections to I-405. These projects are intended to improve operations at on- and off-ramps as well as on the arterials themselves. An additional lane in each direction was assumed for these arterials, although further analysis may show that similar benefits could be achieved through selected intersection improvements in some cases.

Arterial Interchange Improvements (One Lane Each Direction)		
Jurisdiction	**Project ID**	**Projects**
Tukwila	R.IC-3	SR 181 West Valley Highway/ Interurban
Renton	R.IC-4	SR 169 Maple Valley Hwy SR 900 to NE 5th
Bellevue	R.IC-6	Coal Creek Pkwy I-405 to Factoria Blvd.
Kirkland, Redmond	R.IC-8	NE 85th St-Kirkland Way to 124th
Kirkland	R.IC-9	NE 116th- 114th Ave NE to 124th Ave NE
Kirkland	R.IC-10	NE 124th- 113th Ave NE to 124th Ave NE
Kirkland	R.IC-26	NE 132nd - 113th to 124th Ave NE
Bothell	R.IC-11	SR 527-228th to SR 524
Kirkland, King Co	R.IC-14	New half diamond interchange to/from north at NE 132nd St
Bothell	R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)
Bothell	R.IC-24	NE 160th Street-112th Ave to Juanita/Woodinville Way

21. CORRIDOR PEDESTRIAN AND BICYCLE IMPROVEMENTS

Overview

Non-motorized improvements throughout the corridor provide needed connections between modes (e.g. pedestrian overpasses from park and rides to freeway bus stops) and allow for commutes or trips to be made by walking or biking. Alternative 3 will exclude all of the 'long-distance' trails (identified below under the heading Pedestrian/Bicycle Connections) from this element. These improvements need further refinement in the context of other major elements in the alternatives.

Pedestrian/Bicycle (I-405 Crossings)		
Bellevue	NM. CR-1	Lk Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks
Bothell	NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add ped/bike facility
King County	NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder
King County	NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder
Renton	NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder
Renton	NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder
Bothell	NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add ped/bike over-crossing of I-405
Bothell	NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - ped/bike facility

Pedestrian/Bicycle Connections		
Bellevue	NM.P&B-4	Lake Washington Blvd - SR 405 to SE 60th - Add ped/bike facilities
Bellevue, Kirkland	NM.P&B-2	BNSF Right of Way - SE 8th to Totem Lake - Add ped/bike facility.
Bellevue, Newcastle, Renton	NM.P&B-6	Lake Washington Blvd/112th - SE 60th to May Creek I/C - Add ped/bike facility
Bothell	NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add ped/bike trail.
Renton	NM. P&B 14	Cedar River Trail S. Extension - I-405 to Burnett Ave - Add ped/bike facilities (ETP NM-17)
Renton	NM. P&B 15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lk Wash Blvd Loop - Add ped/bike facilities (ETP NM-15)
Renton	NM. P&B 16	Cedar-Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add ped/bike facilities
Renton	NM. P&B 17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection
Renton/Tukwila	NM. P&B 18	I-405/1-5 - via or around I-405/I-5 interchange - Add ped/bike facilities
Tukwila	NM. P&B 19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes

22. I-405 CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM ENHANCEMENTS

Overview

This major element provides ITS enhancements to facilitate more reliable traffic flow.

I-405 Corridor ITS Enhancements		
Jurisdiction	**Project ID**	**Projects**
Various	ITS.1	Add Camera Coverage to decrease TMC blind spots
Various	ITS.2	Complete Ramp Metering
Various	ITS.4	Dual Lane Ramp Metering
Various	ITS.5	Increased Incident Response
Various	ITS.6	Traffic adaptive control on arterials
Various	ITS.7	TIS before all major decision points
Various	ITS.8	WSDOT support of in-vehicle traffic information
Various	ITS.9	Arterial camera coverage

23. I-405 CORRIDOR FREIGHT ENHANCEMENTS

Overview

This major element focuses on improvements specific to freight movements. Note that freight will benefit as well from general purpose traffic expansion described in other elements.

I-405 Corridor Freight Enhancements		
Jurisdiction	**Project ID**	**Projects**
Renton	R.FR-10	Modify SR 167 Interchange for East to South Freight movements
Various	R.FR-11	Improve truck flow with ITS
Various	R.FR-23	Remote area for overnight freight parking and staging for early morning deliveries
Various	R.FR-26	Full depth shoulders for truck usage on key freeways and arterials)
Various	R.FR-27	Traveler Information System (TIS) on SR 167 for I-405 “options”
Various	R.FR-28	TIS on I-5 for SR 18/I-90; and 164th to I-405; and South 200th to I-405
Various	R.FR-29	Centralized fax/radio for real time congestion reporting for dispatchers and truck drivers. Leverage WSDOT video linkages (e.g., a “T-911” number).
Various	R.FR-30	Hours of operation and service periods optimized—“JIT” redefined for applicable service sectors (e.g. restaurants)
Various	R.FR-32	Light cargo delivery using Sound Transit service

APPENDIX B
Alternatives Project Matrix

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives				
		Jurisdiction	*ACTIONS*		5	1	2	3	4
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**
10.	**Basic I-405 Improvement Projects**								
	Renton	R.BI-1 & R.FR-10	SR 167 Interchange - Direct Connection with auxiliary lane SB SR 169 to SR 167			✓	✓	✓	✓
	Kirkland	R.BI-2	Continue NB climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th			✓	✓		✓
	Kirkland	R.BI-3	SB auxiliary Lane NE 124th to NE 85th			✓	✓		✓
	Bellevue	R.BI-4	I-90 / Coal Creek Interchange			✓	✓	✓	✓
	Both,King Co,Kirk	R.BI-5	SB SR 522 to 124th continue climbing lane as an auxiliary lane			✓	✓		✓
	Bothell	R.BI-6	NB auxiliary lane SR 522 to SR 527			✓	✓		✓
	Renton	R.BI-7	Kennydale Hill climbing lane - SR 900 to 44th - NB 900 to 30th, SB 44th - 30th			✓	✓		✓
	Bellevue	R.BI-8	I-90 to Bellevue SB HOV direct connection to I-90 west			✓	✓		✓
	Bellevue	R.BI-9	NB auxiliary lane I-90 to NE 8th			✓	✓		✓
	Bellevue	R.BI-10	Increase SR 405 to Eastbound SR 520 Ramp capacity			✓	✓		✓
	Renton	R.BI-14	NB Auxilliary Lane I-5 to SR 167			✓	✓		✓
	Various	R.FR.24	Improve interchange geometrics at all major truck routes (WB-20 Design Criteria)			✓	✓	✓	✓
10.	**Committed Freeway Projects**								
	Joint	R-17 & R-17(17)	I-90/SR 900 Interchange and SR 900 improvements/Interchange reconfiguration Outside of Study Area						
	Joint	R-19	I-90/Sunset Way Interchange/Complete interchange and upgrade nonmotorized connections. Outside of Study Area						
	WSDOT	R-55	I-405/SR 167 Interchange/Construct new southbound I-405-to-southbound SR 167 ramp modification.		✓	✓	✓	✓	✓
	SR 405 Through Capacity (TC)								
11.	**Two additional GP lanes in each direction**								
	Tukwila,Renton	R.TC-1	Two additional GP lanes in each direction - SR 5 Tukwila to SR 167					✓	
	Renton	R.TC-2	Two additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C					✓	
	Renton, Nwcas,Bel	R.TC-3	Two additional GP lanes in each direction - SR 900/North Renton I/C to SR 90					✓	
	Bellevue	R.TC-4	Two additional GP lanes in each direction - SR 90 To SR 520					✓	
	Bellevue,Kirkland	R.TC-5	Two additional GP lanes in each direction - SR 520 to NE 70th					✓	
	Kirkland	R.TC-6	Two additional GP lanes in each direction - NE 70th to NE 124th					✓	
	Kirk,K C,Both	R.TC-7	Two additional GP lanes in each direction - NE 124th SR 522					✓	
	Bothell,Sno Co	R.TC-8	Two additional GP lanes in each direction - SR 522 to SR 527					✓	
	Sno Co	R.TC-9	Two additional GP lanes in each direction - SR 527 to SR 5 Swamp Creek					✓	
13.	**Express Lanes- 2 lanes each direction between major interchanges**								
	Tukwila,Renton	R.TC-20 + R.TC-29a	Add Express lanes - SR 5 Tukwila to SR 167						✓
	Renton	R.TC-21	Add Express lanes - SR 167 to SR 900 North Renton						✓
	Ren, Nwcas,Bel	R.TC-22 + R.TC-33	Add Express lanes -SR 900 North Renton I/C to SR 90						✓
	Bellevue	R.TC-23	Add Express lanes - SR 90 to SR 520						✓
	Bellevue,Kirkland	R.TC-24 + R.TC-32	Add Express lanes - SR 520 to NE 70th						✓
	Kirkland	R.TC-25	Add Express lanes - NE 70th to NE 124th						✓
	Kirk,K C,Both	R.TC-26 + R.TC-31	Add Express lanes - NE 124th to SR 522						✓
	Bothell,Sno Co	R.TC-27	Add Express lanes - SR 522 to SR 527						✓
	Sno. Co	R.TC-29 + R.TC-30	Add Express Lanes - SR 527 to SR 5 Swamp Creek						✓
	Renton	R.TC-28	Add Express lanes- on SR 167 north of 180th up to I-405						✓

∗ Evaluated within another project

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives				
		Jurisdiction	*ACTIONS*		5	1	2	3	4
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**
13.	**Express Lanes - Access Locations**								
	Tuk & Renton		R.TC-29a & R.TC-20	Southern end to Express lanes - Between SR 181 and SR 167					✓ ✻
	Snohomish Co		R.TC-30 & R.TC-29	Northern end to Express lanes - Between SR 527 and I-5					✓ ✻
	King Co,Kirkland		R.TC-31 & R.TC-26	Slip Ramp- South of NE 160th St					✓ ✻
	Kirkland		R.TC-32 & R-TC-24	Slip Ramp- South of NE 70th St					✓ ✻
	Bellevue, Newcastle		R.TC-33 & R.TC-22	Slip Ramp- South of Coal Creek Pkwy					✓ ✻
	Renton		R.TC-34	Interchange access location- SR 167					✓
14.	**Widen SR 167 by 1 lane each direction to study Area boundary**								
	Renton, Kent		R.CF-8	SR 167 I-405 to Study Area Boundary			✓	✓	✓
14A.	**SR 167 / I-405 Interchange Improvements**								
	Renton		R.FR-10 & R.BI-1	SR 167/I-405 Interchange Add Directional Ramps for major movements			✓ ✻	✓ ✻	✓ ✻
16.	**Connecting Freeway Capacity (Matched to fit I-405 Improvements)**								
	Tuikwila		R.CF-1	SR 518 I-405 to SR 99/Airport Access			✓	✓	✓
	Bellevue		R.CF-3	I-90 South Bellevue to Eastgate				✓	✓
	Bellevue		R.CF-4	SR 520 Bellevue Way to 148th					✓
	Bothell, Woodin		R.CF-5	SR 522 Bothell to NE 195th			✓	✓	✓
	Sno Co, Lynnwood		R.CF-6	SR 525 I-405 to SR 99			✓	✓	✓
	Tukwila		R.CF-9	I-5 at Tukwila			✓	✓	✓
	Lynnwood		R.CF-10	I-5 at Swamp Creek - 44th to 155th			✓	✓	✓
10A.	**One additional GP or Auxiliary lane in each direction**								
	Tukwila,Renton		R.TC-9	One additional GP lanes in each direction - SR 5 Tukwila to SR 167			✓		✓
	Renton		R.TC-10	One additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C			✓		✓
	Ren, Nwcas,Bel		R.TC-11	One additional GP lanes in each direction - SR 900/North Renton I/C to SR 90			✓		✓
	Bellevue		R.TC-12	One additional GP lanes in each direction - SR 90 To SR 520			✓		✓
	Bellevue,Kirkland		R.TC-13	One additional GP lanes in each direction - SR 520 to NE 70th (Varify need for additional through capacity on this section)			✓		✓
	Kirkland		R.TC-14	One additional GP lanes in each direction - NE 70th to NE 124th			✓		✓
	Kirk,K C,Both		R.TC-15	One additional GP lanes in each direction - NE 124th SR 522			✓		✓
	Bothell,Sno Co		R.TC-16	One additional GP lanes in each direction - SR 522 to SR 527			✓		✓
	Sno. Co		R.TC-17	One additional GP lanes in each direction - SR 527 to SR 5 Swamp Creek			✓		✓
18.	**Arterial Capacity (AC) Actions**								
	King Co		R.AC-2 & R-39	138th Ave - Petrovitsky Rd to SR 169- Add 1 lane. See R-39					
	King Co, Renton		R.AC-3	138th Ave SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St				✓	✓
	Ren, Nwcas,Bel		R.AC-4	140th Ave/Coal Creek Pkwy- Widen to 6 lanes to I-405					
	Redmond		R.AC-15 & R-111	Willows Rd- NE 90th St to NE 124th St- Add 1 lane each direction					✓ ✻
	King Co,Woodin		R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes				✓	✓
	Woodinville		R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes				✓ ✻	✓ ✻
	Red,K C,Woodin		R.AC-18 & R.PA-28	SR 202 - NE 90th to NE 145th					✓ ✻
	Ren, K C, Issaqu		R.AC-19 & R.IC-5	SR 900 - SR 405 to Edmonds. Additional capacity is not needed					
	Both,S C,Mill Cr		R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction					✓
	Both,Woodin		R.AC-30 & R.PA-25	SR 202 connection across SR 522 to 120th				✓ ✻	✓ ✻
	Bothell		R.AC-34	120th Ave NE - SR 522 to NE 195th (4 lns existing additioal not needed)					

✻ ***Evaluated within another project***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives				
	Jurisdiction	*ACTIONS*			5	1	2	3	4
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**
	Tukwila	R.AC-35	SR 181- S 180th to S 200th						✓
	Tukwila	R.AC-36& R.IC-3	SR 181- 144th to Strander Blvd.						✓ ✻
	Tukwila	R.AC-37	Southcenter Pky - Tukwila Pky to Strander Blvd						✓
19.	**Arterial Interchange Improvements (Matched to fit I-405 Improvements)**								
	Tukwila	R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36				✓	✓	✓
	Renton	R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43				✓ ✻	✓ ✻	✓
	Renton	R.IC-5 & R.AC-19	SR 900/ Park - Lake Washington Blvd to Edmonds. Additional capacity is not needed.						
	Bellevue	R.IC-6	Coal Creek Pkwy I-405 to Factoria Blvd.		✓	✓	✓	✓	✓
	Kirkland, Redmond	R.IC-8	NE 85th St-Kirkland Way to 124th				✓	✓	✓
	Kirkland	R.IC-9	NE 116th- 114th Ave NE to 124th Ave NE				✓	✓	✓
	Kirkland	R.IC-10	NE 124th- 113th Ave NE to 124th Ave NE				✓	✓	✓
	Bothell	R.IC-11 & R.HOV-41	SR 527-228th to SR 524				✓	✓	✓
	Renton	R.IC-12 & R.HOV-33	Port Quendall overpass at SE 44th. See R.HOV-33						
	Kirk,King Co	R.IC-14	New half diamond interchange to/from north at NE 132nd St					✓	✓
	Bothell	R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)					✓	✓
	Bothell	R.IC-24 & R-40	NE 160th Street-112th Ave to Juanita/Woodinville Wy See R-40				✓ ✻	✓ ✻	✓ ✻
	Bothell	R.!C-25	NE 195th Street-Ross Rd to North Creek Pkwy (additional capacity not needed)						
	Kirkland	R.IC-26 & R.PA-13	NE 132nd - 113th to 124th Ave NE					✓ ✻	✓ ✻
12.	**Collector Distributors (CD) Matched to fit I-405 Improvements**								
	Renton	R.CD-1	SR-167, SR-169, Sunset and SR 900/North Renton;						
	Bellevue	R.CD-2	Coal Creek, SR 90, SE 8th, NE 4th, NE 8th and SR 520;						
	Kirkland	R.CD-3	NE 70th and NE 85th;						
	Kirkland	R.CD-4	NE 116th and NE 132nd;						
	Bothell, King Co	R.CD-5	NE 160th, SR-522 and SR 527						
	HOV (HOV)								
7.	**Committed HOV Projects**								
	Bellevue	HOV-01	I-405 at NE 4th/6th/8th (Bellevue) / Construct new HOV direct access at NE 6th, Improve arterial capacity at NE 4th/8th interchanges		✓	✓	✓	✓	✓
	Bellevue	HOV-02	I-90 (Eastgate) / New I-90 HOV direct access connection to P&R		✓	✓	✓	✓	✓
	WSDOT	HOV-14	I-405 (I-5 Swamp Creek to SR 527)/Construct NB and SB HOV lanes total 6 lanes		✓	✓	✓	✓	✓
	KCDOT	HOV-15	E Lk Samm Pkwy (Iss-Fall City Rd to I-90 on ramp)/Widen to 4/5 lanes + HOV lanes. Outside of Study Area						
	ST	HOV-101	I-405 @ Lind/HOV direct access improvements.					✓	
	ST	HOV-102, R.HOV-58 & R.PA-1	Woodinville Arterial Enhancements/HOV arterial enhancements		✓	✓	✓	✓	✓
	Renton	R.HOV-32	Between Sunset and SR-900 /Park Ave interchange in Renton		✓	✓	✓	✓	✓
	Renton	R.HOV-33 & R.IC-12	NE 44th I/C - HOV Direct Access and Arterial Improvements(Assumes Port Quendall)		✓	✓	✓	✓	✓
	Kirkland	R.HOV-61	NE 85th					✓	
	Bothell	R.HOV-62	SR 522 Campus Access		✓	✓	✓	✓	✓
	Bothell	R.HOV-63	SR 527		✓	✓	✓	✓	✓
	Tukwila	R.HOV-64	Southcenter (In-Line Station). In line station at this location has been dropped.						
	ST	R.HOV-66	I-405 at NE 128th St/HOV Direct Access Improvements		✓	✓	✓	✓	✓

✻ ***Evaluated within another project***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives				
		Jurisdiction		*ACTIONS*	5	1	2	3	4
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**
7.	**HOV Interchange Ramps (Direct Access)**								
	Tukwila		R.HOV-25	SR 5 I/C @ Tukwila Fwy to Fwy HOV ramps,			✓	✓	✓
	Renton		R.HOV-26	SR 167 I/C Fwy to Fwy HOV ramps,			✓	✓	✓
	Bellevue		R.HOV-27	SR 90 I/C Fwy to Fwy HOV ramps,			✓	✓	✓
	Bellevue		R.HOV-28	SR 520 Fwy to Fwy HOV ramps,			✓	✓	✓
	Bothell		R.HOV-29	SR 522 Fwy to Fwy HOV Ramps			✓	✓	✓
	Sno. Co.		R.HOV-30	SR 5 I/C @ Swamp Creek Fwy HOV ramps.			✓	✓	✓
	Newcastle		R.HOV-65	112th St SE (In-Line Station)			✓		
6.	**Arterial HOV**								
	Bellevue		R.HOV-36	Coal Creek Pkwy from I-405 to Forest Drive		✓	✓	✓	
	Bellevue		R.HOV-37	NE 8th Street from I-405 to 120th Ave NE		✓	✓	✓	
	Kirk, Redmond		R.HOV-38	NE 85th St from Kirkland Way to 148th Ave NE Vicinity		✓	✓	✓	
	Kirkland		R.HOV-39	NE 116th from 115th Ave NE to 124th Ave NE		✓	✓	✓	
	Kirkland		R.HOV-40	NE 124th from 113th Ave NE to 132 Ave NE		✓	✓	✓	
	Bothell		R.HOV-41 & R.IC-11	SR 527 From SE 228th St to SR 524		✓	✓ ⁎	✓ ⁎	
	Renton		R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment.		✓	✓	✓	
	Renton		R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave to SR 167		✓	✓	✓	
	Redmond		R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct SB HOV lane		✓	✓	✓	
	Renton, King Co		R.HOV-48	SW 43 St from SR 167 to 140 Ave SE		✓	✓	✓	
	Renton		R.HOV-49	Logan Ave N/N 6 St from S 3 St to Park Dr, Transit Signal Priority		✓	✓	✓	
	Renton		R.HOV-51	Park Dr/Sunset Blvd from Garden Ave to Duvall Ave NE, Que Bypass'		✓	✓	✓	
	Kenmore		R.HOV-53 & R.PA-11	68 Ave NE (Simonds Rd to SR 522) - Construct NB HOV lane		✓	✓	✓	
	Redmond		R.HOV-55	Willows Rd (Redmond Wy to NE 124 St)		✓	✓	✓	
	Kirkland, Bellevue		R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes		✓	✓	✓	
	Kirkland		R.HOV-57	NE 68 St/NE 72 Pl (I-405 Vicinity) Que Bypass'		✓	✓	✓	
	Bothell, Woodin Renton, King Co		R.HOV-58, HOV-102 & R.PA-1 R.HOV-59	SR 522 (I-405 to SR 527 - Bothell) WB HOV Que Bypass - See HOV-102 Benson Rd - I-405 to SE Carr Rd - No Project					
	Bellevue		R.HOV-60	Bellevue Way - I-90 to South Bellevue Park and Ride Vicinity		✓	✓	✓	
23.	**Freight (F)**								
	Renton		R.FR-10 & R.BI-1	Modify SR 167 Interchange for East to South Freight movements		✓ ⁎	✓ ⁎	✓ ⁎	
	Various		R.FR-11	Improve truck flow with ITS		✓	✓	✓	
	Various		R.FR-23	Remote area for overnight freight parking and staging for early morning deliveries		✓	✓	✓	
	Various		R.FR-26	Full depth shoulders for truck usage on key freeways and arterials)		✓	✓	✓	
	Various		R.FR-27	Traveler Information System (TIS) on SR 167 for I-405 "options"		✓	✓	✓	
	Various		R.FR-28	TIS on I-5 for SR 18/I-90; and 164th to I-405; and South 200th to I-405		✓	✓	✓	
	Various		R.FR-29	Centralized fax/radio for real time congestion reporting for dispatchers and truck drivers. Leverage WSDOT video linkages (e.g., a "T-911" number).		✓	✓	✓	
	Various		R.FR-30	Hours of operation and service periods optimized—"JIT" redefined for applicable service sectors (e.g. restaurants)		✓	✓	✓	
	Various		R.FR-32	Light cargo delivery using Sound Transit service		✓	✓	✓	
22.	**Intelligent Transportation Systems (ITS)**								
	Various		ITS-1	Add Camera Coverage to decrease TMC blind spots		✓	✓	✓	✓
	Various		ITS-2	Complete Ramp Metering		✓	✓	✓	✓
	Various		ITS-4	Dual Lane Ramp Metering		✓	✓	✓	✓

⁎ ***Evaluated within another project***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

						Alternatives				
		Jurisdiction		*ACTIONS*		5	1	2	3	4
Element #						**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**
		Various		ITS-5	Increased Incident Response		✓	✓	✓	✓
		Various		ITS-6	Traffic adaptive control on arterials		✓	✓	✓	✓
		Various		ITS-7	TIS before all major decision points		✓	✓	✓	✓
		Various		ITS-8	WSDOT support of in-vehicle traffic information		✓	✓	✓	✓
		Various		ITS-9	Arterial camera coverage		✓	✓	✓	✓
4.	**High Capacity Transit (Physically Separated, Fixed Guideway HCT)**									
		Tuk. & Renton		T.HCT-1	HCT- SeaTac to Renton CBD		✓	✓		
		Renton		T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)		✓	✓		
		Ren< New & Bel		T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria		✓	✓		
		Bell & Issa		T.HCT-4	HCT - Factoria To Issaquah		✓	✓		
		Bellevue		T.HCT-5	HCT Factoria to Downtown Bellevue		✓	✓		
		Bell & Red		T.HCT-6	HCT - Bellevue to Redmond		✓	✓		
		Bell & Kirk		T.HCT-7	HCT- Bellevue to Totem Lake		✓	✓		
		Kirk & King Co		T.HCT-8	HCT - Totem Lake to Bothell		✓	✓		
		Various		T.HCT-9	HCT - Bothell to Lynnwood		✓	✓		
4.	**High Capacity Transit (Bus rapid transit [BRT] operating improved access HOV lanes on the existing freeway system)**									
		Tuk. & Renton		T.HCT-1	HCT- SeaTac to Renton CBD				✓	
		Renton		T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)				✓	
		Ren< New & Bel		T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria				✓	
		Bell & Issa		T.HCT-4	HCT - Factoria To Issaquah				✓	
		Bellevue		T.HCT-5	HCT Factoria to Downtown Bellevue				✓	
		Bell & Red		T.HCT-6	HCT - Bellevue to Redmond				✓	
		Bell & Kirk		T.HCT-7	HCT- Bellevue to Totem Lake				✓	
		Kirk & King Co		T.HCT-8	HCT - Totem Lake to Bothell				✓	
		Various		T.HCT-9	HCT - Bothell to Lynnwood				✓	
4.	**High Capacity Transit Stations**									
		Sea-Tac		HCT.TS-1	Sea-Tac (Outside of Study Area)					
		Tukwila		HCT.TS-2	Southcenter		✓	✓	✓	
		Tukwila & Renton		HCT.TS-3	Tukwila (Longacres)		✓	✓		
		Renton		HCT.TS-4	Downtown Renton		✓	✓	✓	
		Renton		HCT.TS-5	North Renton		✓	✓		
		Renton		HCT.TS-6	Port Quendall		✓	✓	✓	
		Bellevue		HCT.TS-7	Factoria		✓	✓	✓	
		Bellevue		HCT.TS-8	Bellevue Transit Center		✓	✓	✓	
		Bellevue		HCT.TS-9	Bellevue Library		✓	✓		
		Bell & Kirk		HCT.TS-10	SR 520/Northup Way		✓	✓	✓	
		Kirkland		HCT.TS-11	Downtown Kirkland (NE 85th Street)		✓	✓	✓	
		Kirkland		HCT.TS-12	Totem Lake		✓	✓	✓	
		Woodinville		HCT.TS-13	NE 145th Street		✓	✓		
		Woodinville		HCT.TS-14	Woodinville		✓	✓		
		Bothell		HCT.TS-15	NE 195th		✓	✓	✓	

∗ Evaluated within another project

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives				
		Jurisdiction	*ACTIONS*		5	1	2	3	4
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**
		Bothell	HCT.TS-16	Canyon Park		✓	✓	✓	
		Sno County	HCT.TS-17	164th Street AW (AshWay)		✓	✓		
		Bellevue	HCT.TS-18	Eastgate		✓	✓	✓	
		King County	HCT.TS-19	Lakemont		✓	✓		
		Issaquah	HCT.TS-20	Issaquah 9Outside of Study area)					
		Bellevue	HCT.TS-21	132nd Avenue NE		✓	✓		
		Bellevue	HCT.TS-22	148th Avenue NE		✓	✓		
		Redmond	HCT.TS-23	Overlake (NE 40th Street)		✓	✓	✓	
		Redmond	HCT.TS-24	Redmond Town Center		✓	✓	✓	
		Redmond	HCT.TS-25	Bear Creek		✓	✓		
		Mercer Island	HCT.TS-26	Mercer Island		✓	✓	✓	
New	**Transit Service (TS)**								
		Various	TS-0	Twenty percent more service than in the proposed 6-year plans for sound Transit, METRO and Community Transit	✓	✓	✓	✓	✓
		Various	TS-1	Fifty percent more service assumed in the current 6-year plans for Sound Transit, METRO and Community Transit					✓
3.	**Transit Service (TS)**								
		Various	TS-2	Twice the service in the proposed 6-year plans for Sound Transit, METRO and Community Transit		✓	✓	✓	
8.	**Park and Rides (PR)**								
		Renton	T.PR-3	Renton Highlands	✓	✓	✓	✓	✓
		Tukwila & Ren	T.PR-6	Tukwila Commuter Rail (Longacres)	✓	✓	✓	✓	✓
		K C	T.PR-8	SR 169 and 140th Place SE		✓	✓	✓	
		K C	T.PR-9	Petrovitsky Rd and 157th Ave SE		✓	✓	✓	
		K C	T.PR-10	140th Ave SE and SE 192nd		✓	✓	✓	
		K C	T.PR-11	SR 515 and SE 208th		✓	✓	✓	
		Kent & Renton	T.PR-12	SR 167 and SW 43rd		✓	✓	✓	
		Kent & Renton	T.PR-13	SR 167 and 84th Ave		✓	✓	✓	
		Redmond	T.PR-17	Willows Rd @ NE 100th		✓	✓	✓	
		Redmond	T.PR-18	SR 202 @ NE 100th		✓	✓	✓	
		Bell & Kirk	T.PR-20	South Kirkland	✓	✓	✓	✓	✓
		Redmond	T.PR-21	Overlake	✓	✓	✓	✓	✓
		Bellevue	T.PR-22	South Bellevue	✓	✓	✓	✓	✓
		Bellevue	T.PR-23	Newport (112th Ave. SE)	✓	✓	✓	✓	✓
		KC	T.PR-24	NE 160th/Brickyard Rd	✓	✓	✓	✓	✓
		Bothell	T.PR-25	Canyon Park (SR 405 and SR 527)	✓	✓	✓	✓	✓
		KC	T.PR-26	SR 202 @ NE 145th		✓	✓	✓	
		Tukwila	T.PR-30	Tukwila	✓	✓	✓	✓	✓
		Kirkland	T.PR-31	Houghton	✓	✓	✓	✓	✓
		Kirkland	T.PR-32	Kingsgate	✓	✓	✓	✓	✓
		Medina	T.PR-33	Evergreen Point	✓	✓	✓	✓	✓
		Bellevue	T.PR-34	Wilburton	✓	✓	✓	✓	✓
		King County	T.PR-35	Lakemont	✓	✓	✓	✓	✓
		Redmond	T.PR-36	Rendmond	✓	✓	✓	✓	✓
		Redmond	T.PR-37	Bear Creek	✓	✓	✓	✓	✓
		Bothell	T.PR-38	Bothell	✓	✓	✓	✓	✓

∗ Evaluated within another project

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives				
		Jurisdiction	*ACTIONS*		5	1	2	3	4
Element #					No Action	HCT/TDM	Mixed Mode with HCT/Transit Emphasis	Mixed Mode	General Capacity
		Kenmore	T.PR-39	Northshore	✓	✓	✓	✓	✓
		Kenmore	T.PR-40	Kenmore	✓	✓	✓	✓	✓
		Woodinville	T.PR-41	Woodinville	✓	✓	✓	✓	✓
		Mercer Island	T.PR-42	Mercer Island	✓	✓	✓	✓	✓
		Bellevue	T.PR-43	Eastgate	✓	✓	✓	✓	✓
9.	**Transit Centers (TC)**								
		Renton	T.TC-6	Downtown Renton	✓	✓	✓	✓	✓
		Bellevue	T.TC-8	Downtown Bellevue	✓	✓	✓	✓	✓
		Redmond	T.TC-9	Overlake	✓	✓	✓	✓	✓
		Kirkland	T.TC-12	Downtown Kirkland	✓	✓	✓	✓	✓
		Kirkland	T.TC-14	Totem Lake	✓	✓	✓	✓	✓
1.	**TDM (TDM)**								
		Various	TDM-1	TDM Package		✓	✓	✓	✓
			TDM-2	Expanded TDM Package- Regional Congestion Pricing		✓			
	Pedestrian and Bicycle Facilities (P&B)								
21.	**I-405 Crossings**								
		Bellevue	NM. CR-1	Lk Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks		✓	✓	✓	✓
		Bothell	NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add ped/bike facility		✓	✓	✓	✓
		King County	NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder		✓	✓	✓	✓
		Sno. County	NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder		✓	✓	✓	✓
		Renton	NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder		✓	✓	✓	✓
		Renton	NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder		✓	✓	✓	✓
		Bothell	NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add ped/bike overcrossing of I-405		✓	✓	✓	✓
		Bothell	NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - ped/bike facility		✓	✓	✓	✓
21.	**Pedestrian/Bicycle Connections**								
		Bellevue,Kirkland	NM.P&B-2	BNSF Right of Way - SE 8th to Totem Lake - Add ped/bike facility.		✓	✓	✓	
		Bellevue	NM.P&B-4	Lk Washington Blvd - SR 405 to SE 60th - Add ped/bike facilities		✓	✓	✓	
		Bothell	NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add ped/bike trail.		✓	✓	✓	
		Bel,Nwcas,Ren	NM.P&B-6	Lk Washington Blvd/112th - SE 60th to May Creek I/C - Add ped/bike facility		✓	✓	✓	
		Renton	NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave - Add ped/bike facilities		✓	✓	✓	
		Renton	NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lk Wash Blvd Loop - Add ped/bike facilities		✓	✓	✓	
		Renton	NM.P&B-16	Cedar-Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add ped/bike facilities		✓	✓	✓	
		Renton	NM.P&B-17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection		✓	✓	✓	
		Renton/Tukwila	NM.P&B-18	I-405/1-5 - via or around I-405/I-5 interchange - Add ped/bike facilities		✓	✓	✓	✓
		Tukwila	NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes		✓	✓	✓	✓
17.	**Arterial Committed Projects**			(Note: ID numbers are same as ETP ID's					
		Bothell, Snohomish C	R.AC-21	120th NE/39th SE - NE 95th to Maltby Rd - 4/5 lanes including new connection	✓	✓	✓	✓	✓
		Bellevue	R-08	NE 29th Pl (148th Ave NE to NE 24th St)/Construct new 2-lane road	✓	✓	✓	✓	✓

∗ Evaluated within another project

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

				Alternatives				
	Jurisdiction	*ACTIONS*		5	1	2	3	4
Element #				No Action	HCT/TDM	Mixed Mode with HCT/Transit Emphasis	Mixed Mode	General Capacity
	Snohomish Co.	R-10	SR 524 (24 St SW to SR 527)--- Widen to 4/5 lanes including sidewalks, bike lanes	✓	✓	✓	✓	✓
	Bothell	R-13	Beardslee Blvd (Main St to I-405)Widen to 3 lanes+CGS (Project does not add capacity)					
	Joint	R-17 & R-17(10)	I-90/SR 900 Interchange and SR 900 improvements--- Interchange reconfiguration. Project is outside of the Study Area					
	Issaquah	R-18	Issaquah bypass (Issaquah-Hobart Rd to I-90)-- Construct new 4/5 lanes with separated ped/bike trail. Project is outside of the Study Area.					
	Kirkland	R-21	NE 120 St (Slater Ave to 124 Ave NE)--- Construct new 3-lane roadway with ped/bike facilities	✓				
	Redmond/ WSDOT	R-25	SR 202 Corridor Improvements(East Lake Sammamish Pkwy to Sahalee Way)--- Widen to 3/5 lanes; intersection improvements with bike/ped facilities	✓	✓	✓	✓	✓
	Redmond	R-26	NE 90 St (Willows Rd to SR 202)--- Construct new 4/5 lanes + bike facilities	✓	✓	✓	✓	✓
	Redmond	R-28	West Lake Sammamish Parkway (Leary Way to Bel-Red Rd)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓
	Renton	R-36	Oakesdale Ave SW (SW 31st to SW 16th)--- Construct new 5 lane roadway with CGS	✓	✓	✓	✓	✓
	WSDOT	R-38	SR 522 (SR 9 to SR 2)--- Widen to 4 lanes					
	KCDOT	R-39 & R.AC-2	140 Ave SE (SR 169 to SE 208 St)--- Widen to 5 lanes SR 169 to SE 196 St, widen for turn channels on SE 196. Combines 2 King County CIP projects. A major North-South arterial which serves the Soos Creek Plateau and Fairwood.	✓	✓	✓	✓	✓
	KCDOT	R-40 & R.IC-24	Juanita-Woodinville Way (NE 145 St to 112th Ave NE) Widen to 5 lanes + CGS, walkway/pathway	✓	✓	✓	✓	✓
	KCDOT	R-41	East Lake Sammamish Pkwy (Issaquah-Fall City Rd to SE 56 St)--- Widen 4/5 lanes including bike facilities. Construct CGS; interconnect traffic signals. Project is outside of the Study Area.					
	Issaquah	R-42	Sammamish Plateau Access Road (I-90 to Iss.-Pine Lake Rd)-- Prepare EIS, construct new 5-lane arterial w/ CGS, bike lanes. Project is outside of the Study Area.					
	Sammamish	R-44	228 Ave SE (SE 24th to NE 8 St)--- Widen to 4/5 lanes + CGS, bike lanes. Planned in 2 phases. Project is outside of the Study Area.					
	KCDOT	R-45	Issaquah-Fall City Rd (Issaquah-Pine Lake Rd to Klahanie Dr) - Phase II & III--- Widen to 4/5 lanes + CGS, bike lanes. Project is outside of the Study Area.					
	KCDOT	R-47	NE 124 St (Willows Rd to SR 202)--- Widen to 4/5 lanes + CGS, bike facilities; traffic signal.	✓	✓	✓	✓	✓
	KCDOT	R-48	Avondale Rd (Tolt Pipeline to Woodinville-Duvall Rd)--- Widen to 3 lanes + walkway/pathway (Project does not add capacity)					
	Woodinville	R-51	Woodinville-Snohomish Rd/140 Ave NE (NE 175 St to SR 522)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓
	KCDOT	R-52	Woodinville-Duvall Rd (NE 171st St to Avondale Rd)--- Widen to 5 lanes + shoulders (without widening towards Woodinville the added capacity can't be used)					
	Bellevue	R-101	150th Ave SE---Widen to 7 lanes from SE 36th to SE 38th; add turn lanes	✓	✓	✓	✓	✓
	Redmond	R-111 & R.AC-15	Willows Rd Corridor Improvements-- Channelization of Willows Rd/Redmond Way intersection and widening of Willows Rd from NE 116th to NE 124th	✓	✓	✓	✓	✓
	Snohomish Co.	R-117	39th Ave SE Realignment at SR 524 and York Rd--- Construct 4-way intersection to replace 2 offset intersections	✓	✓	✓	✓	✓
17.	**Planned Arterial Projects**							
	Sound Transit	R.PA-1, HOV-102 & R.HOV-58	SR 522 (Woodinville to Bothell)--- HOV enhancements (ETP 246) See HOV-102					
	Bellevue	R.PA-2	148 Ave SE (SE 24 St to SE 28 St) New SB lane from SE 24 St to the WB I-90 on-ramp (ETP 203)			✓	✓	✓
	Bothell	R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)			✓	✓	✓
	Bothell	R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)			✓	✓	✓
	KCDOT	R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)			✓	✓	✓
	KCDOT	R.PA-6	Petrovitsky Rd (143 Ave SE to 151 Ave SE) --- Widen to 5 lanes + CGS, bike lanes, traffic signal, interconnect (ETP 265). Project has already been constructed.					
	KCDOT	R.PA-7	Bear Creek Arterial (NE 80 St to Novelty Hill Rd)--- Corridor study and construction of new 3 lane arterial (ETP 141). Project is outside the study area					
	KCDOT	R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)			✓	✓	✓
	KCDOT	R.PA-9	SE 208 St (116 Ave SE to 132 Ave SE)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signal (ETP 263). Project has already been constructed.					

∗ Evaluated within another project

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives				
		Jurisdiction		*ACTIONS*	5	1	2	3	4
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**
		KCDOT	R.PA-10	NE 132 St Extension (132 Ave NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)			✓	✓	✓
		Kenmore/KCDOT	R.PA-11 & R.HOV-53	68 Ave NE (Simonds Rd to SR 522)--- Construct NB HOV lane total of 5/6 lanes (ETP 22)			✓ ✻	✓ ✻	✓
		Kirkland	R.PA-12	124 Ave NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with ped/bike facilities (ETP R-23)			✓	✓	✓
		Kirkland	R.PA-13 & R.IC-26	NE 132 St (100 Ave NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)			✓	✓	✓
		Kirkland	R.PA-14	NE 100 St (117 Ave NE to Slater Ave) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)			✓	✓	✓
		Newcastle	R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)			✓	✓	✓
		Redmond	R.PA-16	Redmond 148th Ave NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;			✓	✓	✓
		Redmond	R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave NE arterial and new 72nd St arterial w/ bike/ped and CSG; widen Bear Creek Pkwy (ETP R-110)			✓	✓	✓
		Redmond	R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)			✓	✓	✓
		Renton	R.PA-19	Duvall Ave NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)			✓	✓	✓
		Renton	R.PA-20	Oakesdale Ave SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)			✓	✓	✓
		Renton	R.PA-21	Rainier Ave / Grady Way (intersection)-- Grade separation			✓	✓	✓
		Renton	R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)			✓	✓	✓
		Renton	R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)			✓	✓	✓
		Renton/ KCDOT	R.PA-24	Soos Creek Regional Links--- Placeholder for Trans-Valley Study (ETP R-115)			✓	✓	✓
		Woodinville	R.PA-25 & R.AC-30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)			✓	✓	✓
		Woodinville	R.PA-26	SR202 Corridor Package (SR202/148th Ave & SR202/127th Place)--- Intersection improvements (ETP R-54)			✓	✓	✓
		WSDOT	R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and thru lane on 202 to SR 520 (ETP R-29)			✓	✓	✓
		WSDOT	R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)			✓	✓	✓
		WSDOT	R.PA-29	SR 202 (Sahalee Way to Bear Creek-Sammamish Arterial)-- Widen to 4/5 lanes (ETP 152). Project is outside the Study Area.					

✻ ***Evaluated within another project***

APPENDIX C
Communications and Coordination

No specific correspondence was received. However, general coordination is presented in Section 3.2 of this report.

APPENDIX D
Modeling Assumptions/Description

Appendix D

MODELLING ASSUMPTIONS/DESCRIPTION –

A review of the forecasting literature and discussion with several forecasting experts indicated that, in forecasting state-wide or regional economic and demographic change, the quality of infrastructure, including the transportation system is normally not a factor considered in forecasting models. Other factors, especially the dynamics of the regional economy, are considered as the major drivers of regional growth.

Long range regional forecasts prepared at the national level are one of the major sources of data for state, county, and small area economic forecasts. State-level forecasts prepared by the U.S. Census Bureau have estimated migration among states by examination of tax returns to establish rates and directions of migration trends. An economic, employment-based, method of forecasting (Bureau of the Census 1994) is also used to calculate how workers move from areas of low employment opportunity to areas with high opportunity. Since regional economic forecasts typically do not consider infrastructure and transportation variables (Spencer 2000), there is an overall assumption that economic and population growth, and corresponding land use change, can be accommodated somewhere within the region.

At the state level, the methodology for population forecasts rarely consider the quality of the transportation system or other elements of infrastructure. For example, in modeling the future population of counties in Washington, the Washington State Office of Financial Management (OFM) uses a relatively typical cohort survival method to forecast natural population increase (births minus deaths) and an econometric model to forecast net migration (OFM 1996) that integrates expectations of long-term economic performance with population shifts.

Use of national forecasts and regional trends are also incorporated within the methodology for economic and demographic forecasts for the central Puget Sound region. The STEP97 forecasting model (Dick Conway & Associates 1997) used to prepare the Puget Sound Regional Council's (PSRC) long range economic and demographic forecasts includes a variety of measures and trends at the national and regional level, but does not include any variables related to infrastructure. According to Conway (Conway 2000), the STEP97 model is similar to other regional forecasting models in that it is based on people moving to where (the region) the jobs are located. This topic is discussed in greater detail in the Economics expertise report.

Consistent with the methodology used to develop the regional forecasts, the analysis assumes that the proposed I-405 transportation improvements are not a cause of overall regional population growth. Population and businesses will not move to the Puget Sound region as a result of transportation improvements. Rather, they move to the region because of the region's economic vitality. As a consequence, the underlying economic and demographic trends are the same for all of the alternatives.

The analysis considered the supply and demand for land in the study area. PSRC prepares forecasts of population, housing, income, and employment for King, Kitsap, Pierce, and Snohomish Counties, as well as cities within the four-county region. Forecasts for the region are allocated to the counties and then distributed to Forecast Analysis Zones (FAZ) that are made up of one or more census tracts. PSRC's model, the DRAM85/EMPAL85 activity model system, is designed to simulate some of the basic locational dynamics among and within the various geographic subareas of the region, given conditions or forecasts for the region as a whole. The DRAM85 (Disaggregated Residential Allocation Model) and EMPAL85 (Employment Allocation Model) are spatial interaction models, which at the core are based on household demand for residential sites and the transportation accessibility of locations to jobs and residences with the urban area, subject to regional control totals. They predict a future year distribution of population; households, jobs, and land use for a set of base year conditions, zone-to-zone travel costs,

and regional totals. By changing travel times, subject to land use constraints, different spatial patterns of growth may result.

The DRAM85/EMPAL85 modeling system is recursive in that intermediate outputs of forecast population, jobs, and, especially land use, are reviewed by local governments to validate and ensure consistency with existing development information as well as planning and zoning documents. The comparison of forecasts with land use plans is to ensure that the forecasted population growth can be accommodated within the study area. When inconsistencies are found, such as forecast land use exceeding the available supply of land, the model is rerun to redistribute the demand for different land uses.

DRAM/EMPAL first allocates employment and, once that is accomplished, population and households are allocated with respect to accessibility to the workplace. The model contains constraints so that allocated land uses cannot exceed the planned land use capacity of an FAZ. Consequently, the constraints force the allocation to be consistent with county and local land use plans.

APPENDIX E
Future Land Use Impact Tables

Table E.1: Future Land Use Potentially Impacted by No Action Alternative.

Jurisdiction	Actions	Future Land Use Analysis
10. Committed Freeway Projects		
WSDOT R-55	I-405/SR 167 Interchange/Construct new southbound I-405-to-southbound SR 167 ramp modification.	Commercial, Mixed, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Bellevue R.IC-6	Coal Creek Parkway I-405 to Factoria Blvd.	Commercial, Residential Potential substantial localized land use impact. Potential impact to parks in area.
7. Committed HOV Projects		
Bellevue HOV-01	I-405 at NE 4th/6th/8th (Bellevue) / Construct new HOV direct access at NE 6th, Improve arterial capacity at NE 4th/8th interchanges	½ Commercial, ½ Mixed No substantial localized land use impact. Not disruptive to area land use pattern.
Bellevue HOV-02	I-90 (Eastgate) / New I-90 HOV direct access connection to P&R	½ Commercial, ½ Residential Potential substantial localized land use impact. Potential impact to parks in area.
WSDOT HOV-14	I-405 (I-5 Swamp Creek to SR 527)/Construct Northbound and Southbound HOV lanes total 6 lanes	Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Sound Transit HOV-101	I-405 @ Lind Ave. /HOV direct access improvements.	½ Commercial, ½ Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Sound Transit HOV-102, R.HOV.58 & R.PA.1	Woodinville Arterial Enhancements/HOV arterial enhancements	Commercial, Industrial, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Renton R.HOV-32	Between Sunset and SR-900 /Park Ave. interchange in Renton	½ Industrial, ½ Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Renton R.HOV-33 & R.IC.12	NE 44th Interchange - HOV Direct Access and Arterial Improvements(Assumes Port Quendall)	Mixed No substantial localized land use impact. Not disruptive to area land use pattern.
Bothell R.HOV-62	SR 522 Campus Access	Mixed, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Bothell R.HOV-63	SR 527	Commercial, Industrial, Mixed, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Sound Transit R.HOV-66	I-405 at NE 128th St/HOV Direct Access Improvements	Commercial, Industrial, Mixed No substantial localized land use impact. Not disruptive to area land use pattern.
8. Park-and-Rides (PR)		
Renton T.PR-3	Renton Highlands	Location not defined
Tukwila & Renton T.PR-6	Tukwila Commuter Rail (Longacres)	Location not defined
Bellevue & Kirkland T.PR-20	South Kirkland	Location not defined

*Underline indicates dominant land use type.

Redmond T.PR-21	Overlake	Location not defined
Bellevue T.PR-22	South Bellevue	Location not defined
Bellevue T.PR-23	Newport (112th Ave. SE)	Residential Potential substantial localized land use impact. New road construction project.
King County T.PR-24	NE 160th/Brickyard Rd	Residential Potential substantial localized land use impact. New road construction project.
Bothell T.PR-25	Canyon Park (SR 405 and SR 527)	Residential Potential substantial localized land use impact. New road construction project.
Tukwila T.PR-30	Tukwila	Location not defined
Kirkland T.PR-31	Houghton	Location not defined
Kirkland T.PR-32	Kingsgate	Location not defined
Medina T.PR-33	Evergreen Point	Location not defined
Bellevue T.PR-34	Wilburton	Location not defined
King County T.PR-35	Lakemont	Location not defined
Redmond T.PR-36	Redmond	Location not defined
Redmond T.PR-37	Bear Creek	Location not defined
Bothell T.PR-38	Bothell	Location not defined
Kenmore T.PR-39	Northshore	Location not defined
Kenmore T.PR-40	Kenmore	Location not defined
Woodinville T.PR-41	Woodinville	Location not defined
Mercer Island T.PR-42	Mercer Island	Location not defined
Bellevue T.PR-43	Eastgate	Location not defined
9. Transit Centers (TC)		
Renton T.TC-6	Downtown Renton	Location not defined

Bellevue T.TC-8	Downtown Bellevue	Location not defined
Redmond T.TC-9	Overlake	Location not defined
Kirkland T.TC-12	Downtown Kirkland	Location not defined
Kirkland T.TC-14	Totem Lake	Location not defined
17. Arterial Committed Projects		
Bothell, Snohomish County R.AC-21	120th NE/39th SE - NE 95th to Maltby Rd - 4/5 lanes including new connection	Industrial, Mixed, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Bellevue R-08	NE 29th Place (148th Ave. NE to NE 24th St)/Construct new 2-lane road	Commercial, Industrial, Mixed, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Snohomish County R-10	SR 524 (24 St SW to SR 527)--- Widen to 4/5 lanes including sidewalks, bike lanes	Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Kirkland R-21	NE 120 St (Slater Ave. to 124 Ave. NE)--- Construct new 3-lane roadway with pedestrian/bike facilities	Commercial, Industrial, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Redmond/ WSDOT R-25	SR 202 Corridor Improvements(East Lake Sammamish Pkwy to Sahalee Way)--- Widen to 3/5 lanes; intersection improvements with bike/pedestrian facilities	Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Redmond R-26	NE 90 St (Willows Rd to SR 202)--- Construct new 4/5 lanes + bike facilities	Industrial, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Redmond R-28	West Lake Sammamish Parkway (Leary Way to Bellevue-Redmond Rd)--- Widen to 4/5 lanes + CGS, bike lanes	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R-36	Oaksdale Ave. SW (SW 31st to SW 16th)--- Construct new 5 lane roadway with CGS	Commercial No substantial localized land use impact. Not disruptive to area land use pattern.
KCDOT R-39 & R.AC.2	140 Ave. SE (SR 169 to SE 208 St)--- Widen to 5 lanes SR 169 to SE 196 St, widen for turn channels on SE 196. Combines 2 King County CIP projects. A major North-South arterial which serves the Soos Creek Plateau and Fairwood.	Residential No substantial localized land use impact. Not disruptive to area land use pattern.
KCDOT R-40 & R.IC-24	Juanita-Woodinville Way (NE 145 St to 112th Ave. NE) Widen to 5 lanes + CGS, walkway/pathway	Mixed, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
KCDOT R-47	NE 124 St (Willows Rd to SR 202)--- Widen to 4/5 lanes + CGS, bike facilities; traffic signal.	Agricultural No substantial localized land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])

Woodinville R-51	Woodinville-SnohomishRd/140 Ave. NE (NE 175 St to SR 522)--- Widen to 4/5 lanes + CGS, bike lanes	Commercial, Mixed No substantial localized land use impact. Not disruptive to area land use pattern.
Bellevue R-101	150th Ave. SE---Widen to 7 lanes from SE 36th to SE 38th; add turn lanes	Commercial, Residential No substantial localized land use impact. Not disruptive to area land use pattern.
Redmond R-111 & R.AC.15	Willows Rd Corridor Improvements-- Channelization of Willows Rd/Redmond Way intersection and widening of Willows Rd from NE 116th to NE 124th	Agricultural, Industrial, Residential No substantial localized land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Snohomish County R-117	39th Ave. SE Realignment at SR 524 and York Rd--- Construct 4-way intersection to replace 2 offset intersections	Residential No substantial localized land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Table E.2: Future Land Use Potentially Impacted by Alternative 1.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.BI.2	Continue Northbound climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th	Commercial, Mixed, Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.BI.3	Southbound auxiliary Lane NE 124th to NE 85th	Commercial, Mixed, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, King County, Kirkland R.BI.5	Southbound SR 522 to 124th continue climbing lane as an auxiliary lane	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.BI.6	Northbound auxiliary lane SR 522 to SR 527	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.BI.7	Kennydale Hill climbing lane - SR 900 to 44th - Northbound 900 to 30th, Southbound 44th - 30th	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.BI.8	I-90 to Bellevue Southbound HOV direct connection to I-90 west	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.BI.9	Northbound auxiliary lane I-90 to NE 8th	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.BI.14	Northbound Auxiliary Lane I-5 to SR 167	Commercial, Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
6. Arterial HOV		
Bellevue R.HOV-36	Coal Creek Parkway from I-405 to Forest Drive	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-37	NE 8th Street from I-405 to 120th Ave. NE	½ Commercial, ½ Mixed No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, Redmond R.HOV-38	NE 85th St from Kirkland Way to 148th Ave. NE Vicinity	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.HOV-39	NE 116th from 115th Ave. NE to 124th Ave. NE	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.HOV-40	NE 124th from 113th Ave. NE to 132 Ave. NE	Commercial, Mixed, Open Space Potential substantial localized land use impact. Potential impact to parks in area.
Bothell R.HOV-41	SR 527 From SE 228th St to SR 524	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment.	Residential Potential substantial localized land use impact. Potential impact to parks in area.

*Underline indicates dominant land use type.

Renton R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave. to SR 167	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Redmond R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct Southbound HOV lane	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton, King County R.HOV-48	SW 43 St from SR 167 to 140 Ave. SE	Commercial, Government, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-49	Logan Ave. N/N 6 St from S 3 St to Park Dr, Transit Signal Priority	½ Commercial, ½ Industrial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-51	Park Dr/Sunset Blvd from Garden Ave. to Duvall Ave. NE, Queue Bypass'	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kenmore R.HOV-53 & R.PA.11	68 Ave. NE (Simonds Rd to SR 522) - Construct Northbound HOV lane	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.HOV-55	Willows Rd (Redmond Way to NE 124 St)	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, Bellevue R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes	Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.HOV-57	NE 68 St/NE 72 Place (I-405 Vicinity) Queue Bypass'	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.HOV-60	Bellevue Way - I-90 to South Bellevue Park-and-Ride Vicinity	Residential Potential substantial localized land use impact. Potential impact to parks in area.
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
4. High-Capacity Transit		
Tukwila & Renton T.HCT-1	HCT- SeaTac to Renton CBD	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Renton T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)	Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Renton, Newcastle & Bellevue T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria	Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Issaquah T.HCT-4	HCT - Factoria To Issaquah	Commercial, Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern. Project is new road construction, but follows existing I-90 corridor.
Bellevue T.HCT-5	HCT - Factoria to Downtown Bellevue	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.

*Underline indicates dominant land use type.

Bellevue & Redmond T.HCT-6	HCT - Bellevue to Redmond	Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Kirkland T.HCT-7	HCT- Bellevue to Totem Lake	Commercial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Kirkland & King County T.HCT-8	HCT - Totem Lake to Bothell	Agricultural, Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Various T.HCT-9	HCT - Bothell to Lynnwood	Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Project is new construction, but follows existing I-405 corridor.
4. High-Capacity Transit Stations		
Tukwila HCT.TS-2	Southcenter	Mixed Potential substantial localized land use impact. New construction project.
Tukwila & Renton HCT.TS-3	Tukwila (Longacres)	Commercial Potential substantial localized land use impact. New construction project.
Renton HCT.TS-4	Downtown Renton	Commercial Potential substantial localized land use impact. New construction project.
Renton HCT.TS-5	North Renton	Residential Potential substantial localized land use impact. New construction project.
Renton HCT.TS-6	Port Quendall	Mixed Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-7	Factoria	Commercial Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-8	Bellevue Transit Center	Mixed Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-9	Bellevue Library	Mixed Potential substantial localized land use impact. New construction project.
Bellevue & Kirkland HCT.TS-10	SR 520/Northup Way	Residential Potential substantial localized land use impact. New construction project.
Kirkland HCT.TS-11	Downtown Kirkland (NE 85th Street)	Residential Potential substantial localized land use impact. New construction project.
Kirkland HCT.TS-12	Totem Lake	Commercial Potential substantial localized land use impact. New construction project.
Woodinville HCT.TS-13	NE 145th Street	Commercial Potential substantial localized land use impact. New construction project.
Woodinville HCT.TS-14	Woodinville	Mixed Potential substantial localized land use impact. New construction project.
Bothell HCT.TS-15	NE 195th	Mixed Potential substantial localized land use impact. New construction project.

*Underline indicates dominant land use type.

Bothell HCT.TS-16	Canyon Park	Residential Potential substantial localized land use impact. New construction project.
Snohomish County HCT.TS-17	164th Street AW (Ash Way)	Residential Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-18	Eastgate	Commercial Potential substantial localized land use impact. New construction project.
King County HCT.TS-19	Lakemont	Residential Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-21	132nd Avenue NE	Commercial Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-22	148th Avenue NE	Commercial Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-23	Overlake (NE 40th Street)	Industrial Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-24	Redmond Town Center	Mixed Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-25	Bear Creek	Commercial Potential substantial localized land use impact. New construction project.
8. Park-and-Rides (PR)		
King County T.PR-8	SR 169 and 140th Place SE	Commercial Potential substantial localized land use impact. New construction project.
King County T.PR-9	Petrovitsky Rd and 157th Ave SE	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-10	140th Ave SE and SE 192nd	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-11	SR 515 and SE 208th	Residential Potential substantial localized land use impact. New construction project.
Kent & Renton T.PR-12	SR 167 and SW 43rd	Commercial Potential substantial localized land use impact. New construction project.
Kent & Renton T.PR-13	SR 167 and 84th Ave	Industrial Potential substantial localized land use impact. New construction project.
Redmond T.PR-17	Willows Rd @ NE 100th	Commercial Potential substantial localized land use impact. New construction project.
Redmond T.PR-18	SR 202 @ NE 100th	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-26	SR 202 @ NE 145th	Residential Potential substantial localized land use impact. New construction project.
Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		

*Underline indicates dominant land use type.

Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add pedestrian/bike facility	Mixed No substantial land use impact. Not disruptive to area land use pattern.
King County NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder	Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - pedestrian /bike facility	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
21. Pedestrian/Bicycle Connections		
Bellevue, Kirkland NM.P&B-2	BNSF Right-of-Way - SE 8th to Totem Lake - Add pedestrian /bike facility.	Residential No substantial land use impact. Not disruptive to area land use pattern. Beneficial nature of project enhances parks affected by project.
Bellevue NM.P&B-4	Lake Washington Blvd - SR 405 to SE 60th - Add pedestrian /bike facilities	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add pedestrian /bike trail.	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Newcastle, Renton NM.P&B-6	Lake Washington Blvd/112th - SE 60th to May Creek Interchange - Add pedestrian /bike facility	Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave. - Add pedestrian /bike facilities	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lake Wash Blvd Loop - Add pedestrian /bike facilities	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-16	Cedar - Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add pedestrian/bike facilities	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection	Mixed No substantial land use impact. Not disruptive to area land use pattern. Beneficial nature of project enhances parks affected by project.

*Underline indicates dominant land use type.

Renton/Tukwila NM.P&B-18	I-405/1-5 - via or around I-405/I-5 Interchange - Add pedestrian/bike facilities	Mixed No substantial land use impact. Not disruptive to area land use pattern.
Tukwila NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes	Mixed No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Table E.3: Future Land Use Potentially Impacted by Alternative 2.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.BI.2	Continue Northbound climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th	Commercial, Mixed, Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.BI.3	Southbound auxiliary Lane NE 124th to NE 85th	Commercial, Mixed, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, King County, Kirkland R.BI.5	Southbound SR 522 to 124th continue climbing lane as an auxiliary lane	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.BI.6	Northbound auxiliary lane SR 522 to SR 527	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.BI.7	Kennydale Hill climbing lane - SR 900 to 44th - Northbound 900 to 30th, Southbound 44th - 30th	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.BI.8	I-90 to Bellevue Southbound HOV direct connection to I-90 west	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.BI.9	Northbound auxiliary lane I-90 to NE 8th	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.BI.14	Northbound Auxiliary Lane I-5 to SR 167	Commercial, Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
14. Widen SR 167 by 1 lane each direction to study Area boundary		
Renton, Kent R.CF.8	SR 167 I-405 to Study Area Boundary	Commercial, Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
14A. SR 167 / I-405 Interchange Improvements		
Renton R.FR-10	SR 167/I-405 Interchange Add Directional Ramps for major movements	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
16. Connecting Freeway Capacity (Matched to fit I-405 Improvements)		
Tukwila R.CF.1	SR 518 I-405 to SR 99/Airport Access	½ Mixed, ½ Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.CF.3	I-90 South Bellevue to Eastgate	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Tukwila R.CF.9	I-5 at Tukwila	½ Mixed, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Lynnwood R.CF.10	I-5 at Swamp Creek - 44th to 155th	Residential No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

10A. One additional General Purpose or Auxiliary lane in each direction		
Tukwila, Renton R.TC-9	One additional General Purpose lane in each direction - SR 5 Tukwila to SR 167	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.TC-10	One additional General Purpose lanes in each direction - SR 167 to SR 900/North Renton Interchange	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton, Newcastle, Bellevue R.TC-11	One additional General Purpose lanes in each direction - SR 900/North Renton Interchange to SR 90	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.TC-12	One additional General Purpose lanes in each direction - SR 90 To SR 520	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Kirkland R.TC-13	One additional General Purpose lanes in each direction - SR 520 to NE 70th (Verify need for additional through capacity on this section)	Government, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.TC-14	One additional General Purpose lanes in each direction - NE 70th to NE 124th	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, King County, Bothell R.TC-15	One additional General Purpose lanes in each direction - NE 124th SR 522	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, Snohomish County R.TC-16	One additional General Purpose lanes in each direction - SR 522 to SR 527	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.TC-17	One additional General Purpose lanes in each direction - SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Tukwila R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36	Mixed, Industrial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland, Redmond R.IC-8	NE 85th St-Kirkland Way to 124th	Commercial, Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-9	NE 116th- 114th Ave. NE to 124th Ave. NE	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-10	NE 124th- 113th Ave. NE to 124th Ave. NE	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-11	SR 527-228th to SR 524	Commercial, Mixed, Residential, No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-24 & R-40	NE 160th Street-112th Ave. to Juanita/Woodinville Way See R-40	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
7. HOV Interchange Ramps (Direct Access)		
Tukwila R.HOV-25	SR 5 Interchange @ Tukwila Freeway to Freeway HOV ramps,	½ Mixed, ½ Residential Potential substantial localized land use impact. Potential impact to parks in area.

Renton R.HOV-26	SR 167 Interchange Freeway to Freeway HOV ramps,	Commercial, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-27	SR 90 Interchange Freeway to Freeway HOV ramps,	Commercial, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-28	SR 520 Freeway to Freeway HOV ramps,	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.HOV-29	SR 522 Freeway to Freeway HOV Ramps	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.HOV-30	SR 5 Interchange @ Swamp Creek Freeway HOV ramps.	Residential No substantial land use impact. Not disruptive to area land use pattern.
Newcastle R.HOV-65	112th St SE (In-Line Station)	Residential No substantial land use impact. Not disruptive to area land use pattern.
6. Arterial HOV		
Bellevue R.HOV-36	Coal Creek Parkway from I-405 to Forest Drive	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-37	NE 8th Street from I-405 to 120th Ave. NE	½ Commercial, ½ Mixed No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, Redmond R.HOV-38	NE 85th St from Kirkland Way to 148th Ave. NE Vicinity	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.HOV-39	NE 116th from 115th Ave. NE to 124th Ave. NE	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.HOV-40	NE 124th from 113th Ave. NE to 132 Ave. NE	Commercial, Mixed, Open Space Potential substantial localized land use impact. Potential impact to parks in area.
Bothell R.HOV-41	SR 527 From SE 228th St to SR 524	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment.	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave. to SR 167	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Redmond R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct Southbound HOV lane	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton, King County R.HOV-48	SW 43 St from SR 167 to 140 Ave. SE	Commercial, Government, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-49	Logan Ave. N/N 6 St from S 3 St to Park Dr, Transit Signal Priority	½ Commercial, ½ Industrial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-51	Park Dr/Sunset Blvd from Garden Ave. to Duvall Ave. NE, Queue Bypass'	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kenmore R.HOV-53 & R.PA.11	68 Ave. NE (Simonds Rd to SR 522) - Construct Northbound HOV lane	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.

Redmond R.HOV-55	Willows Rd (Redmond Way to NE 124 St)	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, Bellevue R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes	Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.HOV-57	NE 68 St/NE 72 Place (I-405 Vicinity) Queue Bypass'	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.HOV-60	Bellevue Way - I-90 to South Bellevue Park-and-Ride Vicinity	Residential Potential substantial localized land use impact. Potential impact to parks in area.
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
4. High-Capacity Transit		
Tukwila & Renton T.HCT-1	HCT- SeaTac to Renton CBD	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Renton T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)	Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Renton, Newcastle & Bellevue T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria	Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Issaquah T.HCT-4	HCT - Factoria To Issaquah	Commercial, Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern. Project is new road construction, but follows existing I-90 corridor.
Bellevue T.HCT-5	HCT - Factoria to Downtown Bellevue	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Redmond T.HCT-6	HCT - Bellevue to Redmond	Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Kirkland T.HCT-7	HCT- Bellevue to Totem Lake	Commercial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Kirkland & King County T.HCT-8	HCT - Totem Lake to Bothell	Agricultural, Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Various T.HCT-9	HCT - Bothell to Lynnwood	Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Project is new construction, but follows existing I-405 corridor.
4. High-Capacity Transit Stations		

*Underline indicates dominant land use type.

Tukwila HCT.TS-2	Southcenter	Mixed Potential substantial localized land use impact. New construction project.
Tukwila & Renton HCT.TS-3	Tukwila (Longacres)	Commercial Potential substantial localized land use impact. New construction project.
Renton HCT.TS-4	Downtown Renton	Commercial Potential substantial localized land use impact. New construction project.
Renton HCT.TS-5	North Renton	Residential Potential substantial localized land use impact. New construction project.
Renton HCT.TS-6	Port Quendall	Mixed Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-7	Factoria	Commercial Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-8	Bellevue Transit Center	Mixed Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-9	Bellevue Library	Mixed Potential substantial localized land use impact. New construction project.
Bellevue & Kirkland HCT.TS-10	SR 520/Northup Way	Residential Potential substantial localized land use impact. New construction project.
Kirkland HCT.TS-11	Downtown Kirkland (NE 85th Street)	Residential Potential substantial localized land use impact. New construction project.
Kirkland HCT.TS-12	Totem Lake	Commercial Potential substantial localized land use impact. New construction project.
Woodinville HCT.TS-13	NE 145th Street	Commercial Potential substantial localized land use impact. New construction project.
Woodinville HCT.TS-14	Woodinville	Mixed Potential substantial localized land use impact. New construction project.
Bothell HCT.TS-15	NE 195th	Mixed Potential substantial localized land use impact. New construction project.
Bothell HCT.TS-16	Canyon Park	Residential Potential substantial localized land use impact. New construction project.
Snohomish County HCT.TS-17	164th Street AW (Ash Way)	Residential Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-18	Eastgate	Commercial Potential substantial localized land use impact. New construction project.
King County HCT.TS-19	Lakemont	Residential Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-21	132nd Avenue NE	Commercial Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-22	148th Avenue NE	Commercial Potential substantial localized land use impact. New construction project.

*Underline indicates dominant land use type.

Redmond HCT.TS-23	Overlake (NE 40th Street)	Industrial Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-24	Redmond Town Center	Mixed Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-25	Bear Creek	Commercial Potential substantial localized land use impact. New construction project.
8. Park-and-Rides (PR)		
King County T.PR-8	SR 169 and 140th Place SE	Commercial Potential substantial localized land use impact. New construction project.
King County T.PR-9	Petrovitsky Rd and 157th Ave SE	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-10	140th Ave SE and SE 192nd	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-11	SR 515 and SE 208th	Residential Potential substantial localized land use impact. New construction project.
Kent & Renton T.PR-12	SR 167 and SW 43rd	Commercial Potential substantial localized land use impact. New construction project.
Kent & Renton T.PR-13	SR 167 and 84th Ave	Industrial Potential substantial localized land use impact. New construction project.
Redmond T.PR-17	Willows Rd @ NE 100th	Commercial Potential substantial localized land use impact. New construction project.
Redmond T.PR-18	SR 202 @ NE 100th	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-26	SR 202 @ NE 145th	Residential Potential substantial localized land use impact. New construction project.
Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		
Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add pedestrian/bike facility	Mixed No substantial land use impact. Not disruptive to area land use pattern.
King County NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder	Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.

Renton NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - pedestrian /bike facility	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
21. Pedestrian/Bicycle Connections		
Bellevue, Kirkland NM.P&B-2	BNSF Right-of-Way - SE 8th to Totem Lake - Add pedestrian /bike facility.	Residential No substantial land use impact. Not disruptive to area land use pattern. Beneficial nature of project enhances parks affected by project.
Bellevue NM.P&B-4	Lake Washington Blvd - SR 405 to SE 60th - Add pedestrian /bike facilities	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add pedestrian /bike trail.	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Newcastle, Renton NM.P&B-6	Lake Washington Blvd/112th - SE 60th to May Creek Interchange - Add pedestrian /bike facility	Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave. - Add pedestrian /bike facilities	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lake Wash Blvd Loop - Add pedestrian /bike facilities	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-16	Cedar - Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add pedestrian/bike facilities	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection	Mixed No substantial land use impact. Not disruptive to area land use pattern. Beneficial nature of project enhances parks affected by project.
Renton/Tukwila NM.P&B-18	I-405/1-5 - via or around I-405/I-5 Interchange - Add pedestrian/bike facilities	Mixed No substantial land use impact. Not disruptive to area land use pattern.
Tukwila NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes	Mixed No substantial land use impact. Not disruptive to area land use pattern.
17. Planned Arterial Projects		
Bellevue R.PA-2	148 Ave. SE (SE 24 St to SE 28 St) New Southbound lane from SE 24 St to the WB I-90 on-ramp (ETP 203)	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.

*Underline indicates dominant land use type.

Bothell R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)	Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)	Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-10	NE 132 St Extension (132 Ave. NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)	Residential Potential substantial localized land use impact. Potential for disruptive bisection of residential area.
Kenmore/KCDOT R.PA-11 & R.HOV.53	68 Ave. NE (Simonds Rd to SR 522)--- Construct Northbound HOV lane total of 5/6 lanes (ETP 22)	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.PA-12	124 Ave. NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with pedestrian /bike facilities (ETP R-23)	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.PA-13 & R.IC-26	NE 132 St (100 Ave. NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)	Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.PA-14	NE 100 St (117 Ave. NE to Slater Ave.) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Newcastle R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)	Commercial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.PA-16	Redmond 148th Ave. NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;	Industrial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave. NE arterial and new 72nd St arterial w/ bike/ pedestrian and CSG; widen Bear Creek Pkwy (ETP R-110)	Mixed Potential substantial localized land use impact. Potential for disruptive bisection of mixed use area.
Redmond R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave. NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)	Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.PA-19	Duvall Ave. NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)	Mixed, Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-20	Oakesdale Ave. SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)	Commercial, Industrial No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Renton R.PA-21	Rainier Ave. / Grady Way (intersection)-- Grade separation	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)	Commercial Potential substantial localized land use impact. Potential for disruptive bisection of commercial area.
Woodinville R.PA-25 & R.AC.30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Woodinville R.PA-26	SR202 Corridor Package (SR202/148th Ave. & SR202/127th Place)--- Intersection improvements (ETP R-54)	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
WSDOT R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and through lane on 202 to SR 520 (ETP R-29)	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
WSDOT R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)	½ Mixed, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Table E.4: Future Land Use Potentially Impacted by Alternative 3.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential No substantial land use impact. Not disruptive to area land use pattern.
14. Widen SR 167 by 1 lane each direction to study Area boundary		
Renton, Kent R.CF.8	SR 167 I-405 to Study Area Boundary	Commercial, Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
14A. SR 167 / I-405 Interchange Improvements		
Renton R.FR-10	SR 167/I-405 Interchange Add Directional Ramps for major movements	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
SR 405 Through Capacity (TC) **11. Two additional GP lanes in each direction**		
Tukwila, Renton R.TC-1	Two additional General Purpose lanes in each direction - SR 5 Tukwila to SR 167	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.TC-2	Two additional General Purpose lanes in each direction - SR 167 to SR 900/North Renton Interchange	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton, Newcastle, Bellevue R.TC-3	Two additional General Purpose lanes in each direction - SR 900/North Renton Interchange to SR 90	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.TC-4	Two additional General Purpose lanes in each direction - SR 90 To SR 520	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Kirkland R.TC-5	Two additional General Purpose lanes in each direction - SR 520 to NE 70th	Government, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.TC-6	Two additional General Purpose lanes in each direction - NE 70th to NE 124th	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, King County, Bothell R.TC-7	Two additional General Purpose lanes in each direction - NE 124th SR 522	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, Snohomish County R.TC-8	Two additional General Purpose lanes in each direction - SR 522 to SR 527	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.TC-9	Two additional General Purpose lanes in each direction - SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
16. Connecting Freeway Capacity (Matched to fit I-405 Improvements)		
Tukwila R.CF.1	SR 518 I-405 to SR 99/Airport Access	½ Mixed, ½ Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.CF.3	I-90 South Bellevue to Eastgate	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Bothell, Woodinville R.CF.5	SR 522 Bothell to NE 195th	Residential, Mixed Potential substantial localized land use impact. Potential impact to parks in area.
Tukwila R.CF.9	I-5 at Tukwila	½ Mixed, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Lynnwood R.CF.10	I-5 at Swamp Creek - 44th to 155th	Residential No substantial land use impact. Not disruptive to area land use pattern.
18. Arterial Capacity (AC) Actions		
King County, Renton R.AC-3	138th Ave. SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St	Residential No substantial land use impact. Not disruptive to area land use pattern.
King County, Woodinville R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Woodinville R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Bothell, Woodinville R.AC-30 & R.PA.25	SR 202 connection across SR 522 to 120th	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Tukwila R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36	Mixed, Industrial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland, Redmond R.IC-8	NE 85th St-Kirkland Way to 124th	Commercial, Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-9	NE 116th- 114th Ave. NE to 124th Ave. NE	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-10	NE 124th- 113th Ave. NE to 124th Ave. NE	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-11	SR 527-228th to SR 524	Commercial, Mixed, Residential, No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, King County R.IC-14	New half diamond interchange to/from North at NE 132nd St	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-24 & R-40	NE 160th Street-112th Ave. to Juanita/Woodinville Way See R-40	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-26 & R.PA-13	NE 132nd - 113th to 124th Ave. NE	Government, Residential No substantial land use impact. Not disruptive to area land use pattern.
7. Committed HOV Projects		

Sound Transit HOV-101	I-405 @ Lind Ave. /HOV direct access improvements.	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.HOV-61	NE 85th	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
7. HOV Interchange Ramps (Direct Access)		
Tukwila R.HOV-25	SR 5 Interchange @ Tukwila Freeway to Freeway HOV ramps,	½ Mixed, ½ Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.HOV-26	SR 167 Interchange Freeway to Freeway HOV ramps,	Commercial, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-27	SR 90 Interchange Freeway to Freeway HOV ramps,	Commercial, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-28	SR 520 Freeway to Freeway HOV ramps,	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.HOV-29	SR 522 Freeway to Freeway HOV Ramps	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.HOV-30	SR 5 Interchange @ Swamp Creek Freeway HOV ramps.	Residential No substantial land use impact. Not disruptive to area land use pattern.
6. Arterial HOV		
Bellevue R.HOV-36	Coal Creek Parkway from I-405 to Forest Drive	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-37	NE 8th Street from I-405 to 120th Ave. NE	½ Commercial, ½ Mixed No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, Redmond R.HOV-38	NE 85th St from Kirkland Way to 148th Ave. NE Vicinity	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.HOV-39	NE 116th from 115th Ave. NE to 124th Ave. NE	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.HOV-40	NE 124th from 113th Ave. NE to 132 Ave. NE	Commercial, Mixed, Open Space Potential substantial localized land use impact. Potential impact to parks in area.
Bothell R.HOV-41	SR 527 From SE 228th St to SR 524	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment.	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave. to SR 167	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Redmond R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct Southbound HOV lane	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton, King County R.HOV-48	SW 43 St from SR 167 to 140 Ave. SE	Commercial, Government, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.HOV-49	Logan Ave. N/N 6 St from S 3 St to Park Dr, Transit Signal Priority	½ Commercial, ½ Industrial No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Renton R.HOV-51	Park Dr/Sunset Blvd from Garden Ave. to Duvall Ave. NE, Queue Bypass'	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kenmore R.HOV-53 & R.PA.11	68 Ave. NE (Simonds Rd to SR 522) - Construct Northbound HOV lane	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.HOV-55	Willows Rd (Redmond Way to NE 124 St)	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, Bellevue R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes	Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.HOV-57	NE 68 St/NE 72 Place (I-405 Vicinity) Queue Bypass'	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.HOV-60	Bellevue Way - I-90 to South Bellevue Park-and-Ride Vicinity	Residential Potential substantial localized land use impact. Potential impact to parks in area.
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
4. High-Capacity Transit		
Tukwila & Renton T.HCT-1	HCT- SeaTac to Renton CBD	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Renton T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)	Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Renton, Newcastle & Bellevue T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria	Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Issaquah T.HCT-4	HCT - Factoria To Issaquah	Commercial, Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern. Project is new construction, but follows existing I-90 corridor.
Bellevue T.HCT-5	HCT - Factoria to Downtown Bellevue	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Redmond T.HCT-6	HCT - Bellevue to Redmond	Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Bellevue & Kirkland T.HCT-7	HCT- Bellevue to Totem Lake	Commercial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area. Completely new construction and potential for impacts from bisection of land use areas.
Kirkland & King County T.HCT-8	HCT - Totem Lake to Bothell	Agricultural, Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])

*Underline indicates dominant land use type.

Various T.HCT-9	HCT - Bothell to Lynnwood	Commercial, Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area. Project is new construction, but follows existing I-405 corridor.
4. High-Capacity Transit Stations		
Tukwila HCT.TS-2	Southcenter	Mixed Potential substantial localized land use impact. New construction project.
Renton HCT.TS-4	Downtown Renton	Commercial Potential substantial localized land use impact. New construction project.
Renton HCT.TS-6	Port Quendall	Mixed Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-7	Factoria	Commercial Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-8	Bellevue Transit Center	Mixed Potential substantial localized land use impact. New construction project.
Bellevue & Kirkland HCT.TS-10	SR 520/Northup Way	Residential Potential substantial localized land use impact. New construction project.
Kirkland HCT.TS-11	Downtown Kirkland (NE 85th Street)	Residential Potential substantial localized land use impact. New construction project.
Kirkland HCT.TS-12	Totem Lake	Commercial Potential substantial localized land use impact. New construction project.
Bothell HCT.TS-15	NE 195th	Mixed Potential substantial localized land use impact. New construction project.
Bothell HCT.TS-16	Canyon Park	Residential Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-18	Eastgate	Commercial Potential substantial localized land use impact. New construction project.
Bellevue HCT.TS-22	148th Avenue NE	Commercial Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-23	Overlake (NE 40th Street)	Industrial Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-24	Redmond Town Center	Mixed Potential substantial localized land use impact. New construction project.
Redmond HCT.TS-25	Bear Creek	Commercial Potential substantial localized land use impact. New construction project.
8. Park-and-Rides (PR)		
King County T.PR-8	SR 169 and 140th Place SE	Commercial Potential substantial localized land use impact. New construction project.
King County T.PR-9	Petrovitsky Rd and 157th Ave SE	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-10	140th Ave SE and SE 192nd	Residential Potential substantial localized land use impact. New construction project.

*Underline indicates dominant land use type.

King County T.PR-11	SR 515 and SE 208th	Residential Potential substantial localized land use impact. New construction project.
Kent & Renton T.PR-12	SR 167 and SW 43rd	Commercial Potential substantial localized land use impact. New construction project.
Kent & Renton T.PR-13	SR 167 and 84th Ave	Industrial Potential substantial localized land use impact. New construction project.
Redmond T.PR-17	Willows Rd @ NE 100th	Commercial Potential substantial localized land use impact. New construction project.
Redmond T.PR-18	SR 202 @ NE 100th	Residential Potential substantial localized land use impact. New construction project.
King County T.PR-26	SR 202 @ NE 145th	Residential Potential substantial localized land use impact. New construction project.
Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		
Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add pedestrian/bike facility	Mixed No substantial land use impact. Not disruptive to area land use pattern.
King County NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder	Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - pedestrian /bike facility	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
21. Pedestrian/Bicycle Connections		
Bellevue, Kirkland NM.P&B-2	BNSF Right-of-Way - SE 8th to Totem Lake - Add pedestrian /bike facility.	Residential No substantial land use impact. Not disruptive to area land use pattern. Beneficial nature of project enhances parks affected by project.
Bellevue NM.P&B-4	Lake Washington Blvd - SR 405 to SE 60th - Add pedestrian /bike facilities	Residential No substantial land use impact. Not disruptive to area land use pattern.

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Bothell NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add pedestrian /bike trail.	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Newcastle, Renton NM.P&B-6	Lake Washington Blvd/112th - SE 60th to May Creek Interchange - Add pedestrian /bike facility	Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave. - Add pedestrian /bike facilities	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lake Wash Blvd Loop - Add pedestrian /bike facilities	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-16	Cedar - Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add pedestrian/bike facilities	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton NM.P&B-17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection	Mixed No substantial land use impact. Not disruptive to area land use pattern. Beneficial nature of project enhances parks affected by project.
Renton/Tukwila NM.P&B-18	I-405/1-5 - via or around I-405/I-5 Interchange - Add pedestrian/bike facilities	Mixed No substantial land use impact. Not disruptive to area land use pattern.
Tukwila NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes	Mixed No substantial land use impact. Not disruptive to area land use pattern.
17. Planned Arterial Projects		
Bellevue R.PA-2	148 Ave. SE (SE 24 St to SE 28 St) New Southbound lane from SE 24 St to the WB I-90 on-ramp (ETP 203)	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bothell R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)	Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)	Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-10	NE 132 St Extension (132 Ave. NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)	Residential Potential substantial localized land use impact. Potential for disruptive bisection of residential area.
Kenmore/KCDOT R.PA-11 & R.HOV.53	68 Ave. NE (Simonds Rd to SR 522)--- Construct Northbound HOV lane total of 5/6 lanes (ETP 22)	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.

Kirkland R.PA-12	124 Ave. NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with pedestrian /bike facilities (ETP R-23)	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.PA-13 & R.IC-26	NE 132 St (100 Ave. NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)	Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.PA-14	NE 100 St (117 Ave. NE to Slater Ave.) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Newcastle R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)	Commercial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.PA-16	Redmond 148th Ave. NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;	Industrial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave. NE arterial and new 72nd St arterial w/ bike/ pedestrian and CSG; widen Bear Creek Pkwy (ETP R-110)	Mixed Potential substantial localized land use impact. Potential for disruptive bisection of mixed use area.
Redmond R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave. NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)	Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.PA-19	Duvall Ave. NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)	Mixed, Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-20	Oakesdale Ave. SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)	Commercial, Industrial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-21	Rainier Ave. / Grady Way (intersection)-- Grade separation	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)	Commercial Potential substantial localized land use impact. Potential for disruptive bisection of commercial area.
Woodinville R.PA-25 & R.AC.30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Woodinville R.PA-26	SR202 Corridor Package (SR202/148th Ave. & SR202/127th Place)--- Intersection improvements (ETP R-54)	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])

*Underline indicates dominant land use type.

WSDOT R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and through lane on 202 to SR 520 (ETP R-29)	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
WSDOT R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)	½ Mixed, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.

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Table E.5: Future Land Use Potentially Impacted by Alternative 4.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.BI.2	Continue Northbound climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th	Commercial, Mixed, Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.BI.3	Southbound auxiliary Lane NE 124th to NE 85th	Commercial, Mixed, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, King County, Kirkland R.BI.5	Southbound SR 522 to 124th continue climbing lane as an auxiliary lane	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.BI.6	Northbound auxiliary lane SR 522 to SR 527	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.BI.7	Kennydale Hill climbing lane - SR 900 to 44th - Northbound 900 to 30th, Southbound 44th - 30th	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.BI.8	I-90 to Bellevue Southbound HOV direct connection to I-90 west	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.BI.9	Northbound auxiliary lane I-90 to NE 8th	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity	½ Commercial, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.BI.14	Northbound Auxiliary Lane I-5 to SR 167	Commercial, Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
13. Express Lanes- 2 lanes each direction between major interchanges		
Tukwila, Renton R.TC-20	Add Express lanes - SR 5 Tukwila to SR 167	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.TC-21	Add Express lanes - SR 167 to SR 900 North Renton	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton, Newcastle, Bellevue R.TC-22	Add Express lanes -SR 900 North Renton Interchange to SR 90	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.TC-23	Add Express lanes - SR 90 to SR 520	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Kirkland R.TC-24	Add Express lanes - SR 520 to NE 70th	Government, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.TC-25	Add Express lanes - NE 70th to NE 124th	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, King County, Bothell R.TC-26	Add Express lanes - NE 124th to SR 522	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Bothell, Snohomish County R.TC-27	Add Express lanes - SR 522 to SR 527	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.TC-29	Add Express Lanes - SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.TC-28	Add Express lanes- on SR 167North of 180th up to I-405	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
13. Express Lanes - Access Locations		
Tukwila & Renton R.TC-29	Southern end to Express lanes - Between SR 181 and SR 167	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.TC-30	Northern end to Express lanes - Between SR 527 and I-5	Residential No substantial land use impact. Not disruptive to area land use pattern.
King County, Kirkland R.TC-31	Slip Ramp- South of NE 160th St	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.TC-32	Slip Ramp- South of NE 70th St	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Newcastle R.TC-33	Slip Ramp- South of Coal Creek Pkwy	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.TC-34	Interchange access location- SR 167	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
14. Widen SR 167 by 1 lane each direction to study Area boundary		
Renton, Kent R.CF.8	SR 167 I-405 to Study Area Boundary	Commercial, Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
14A. SR 167 / I-405 Interchange Improvements		
Renton R.FR-10	SR 167/I-405 Interchange Add Directional Ramps for major movements	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
16. Connecting Freeway Capacity (Matched to fit I-405 Improvements)		
Tukwila R.CF.1	SR 518 I-405 to SR 99/Airport Access	½ Mixed, ½ Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.CF.3	I-90 South Bellevue to Eastgate	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue R.CF.4	SR 520 Bellevue Way to 148th	Commercial, Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, Woodinville R.CF.5	SR 522 Bothell to NE 195th	Residential, Mixed Potential substantial localized land use impact. Potential impact to parks in area.
Tukwila R.CF.9	I-5 at Tukwila	½ Mixed, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.
Lynnwood R.CF.10	I-5 at Swamp Creek - 44th to 155th	Residential No substantial land use impact. Not disruptive to area land use pattern.
10A. One additional General Purpose or Auxiliary lane in each direction		
Tukwila, Renton R.TC-9	One additional General Purpose lane in each direction - SR 5 Tukwila to SR 167	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.

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Renton R.TC-10	One additional General Purpose lanes in each direction - SR 167 to SR 900/North Renton Interchange	Commercial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton, Newcastle, Bellevue R.TC-11	One additional General Purpose lanes in each direction - SR 900/North Renton Interchange to SR 90	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.TC-12	One additional General Purpose lanes in each direction - SR 90 To SR 520	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bellevue, Kirkland R.TC-13	One additional General Purpose lanes in each direction - SR 520 to NE 70th (Verify need for additional through capacity on this section)	Government, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.TC-14	One additional General Purpose lanes in each direction - NE 70th to NE 124th	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, King County, Bothell R.TC-15	One additional General Purpose lanes in each direction - NE 124th SR 522	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, Snohomish County R.TC-16	One additional General Purpose lanes in each direction - SR 522 to SR 527	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.TC-17	One additional General Purpose lanes in each direction - SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
18. Arterial Capacity (AC) Actions		
King County, Renton R.AC-3	138th Ave. SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St	Residential No substantial land use impact. Not disruptive to area land use pattern.
Redmond R.AC-15 & R-111	Willows Rd- NE 90th St to NE 124th St- Add 1 lane each direction	Agricultural, Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
King County, Woodinville R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Woodinville R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Redmond, King County, Woodinville R.AC-18 & R.PA 28	SR 202 - NE 90th to NE 145th	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
Bothell, Snohomish County, Mill Creek R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell, Woodinville R.AC-30 & R.PA.25	SR 202 connection across SR 522 to 120th	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Tukwila R.AC-35	SR 181- S 180th to S 200th	Industrial No substantial land use impact. Not disruptive to area land use pattern.

Tukwila R.AC-36& R.IC-3	SR 181- 144th to Strander Blvd.	Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
Tukwila R.AC-37	Southcenter Parkway - Tukwila Parkway to Strander Blvd.	Mixed No substantial land use impact. Not disruptive to area land use pattern.
19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Tukwila R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36	Mixed, Industrial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43	Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland, Redmond R.IC-8	NE 85th St-Kirkland Way to 124th	Commercial, Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-9	NE 116th- 114th Ave. NE to 124th Ave. NE	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-10	NE 124th- 113th Ave. NE to 124th Ave. NE	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-11	SR 527-228th to SR 524	Commercial, Mixed, Residential, No substantial land use impact. Not disruptive to area land use pattern.
Kirkland, King County R.IC-14	New half diamond interchange to/from North at NE 132nd St	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)	Industrial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.IC-24 & R-40	NE 160th Street-112th Ave. to Juanita/Woodinville Way See R-40	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.IC-26 & R.PA-13	NE 132nd - 113th to 124th Ave. NE	Government, Residential No substantial land use impact. Not disruptive to area land use pattern.
7. HOV Interchange Ramps (Direct Access)		
Tukwila R.HOV-25	SR 5 Interchange @ Tukwila Freeway to Freeway HOV ramps,	½ Mixed, ½ Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.HOV-26	SR 167 Interchange Freeway to Freeway HOV ramps,	Commercial, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-27	SR 90 Interchange Freeway to Freeway HOV ramps,	Commercial, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bellevue R.HOV-28	SR 520 Freeway to Freeway HOV ramps,	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.HOV-29	SR 522 Freeway to Freeway HOV Ramps	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County R.HOV-30	SR 5 Interchange @ Swamp Creek Freeway HOV ramps.	Residential No substantial land use impact. Not disruptive to area land use pattern.
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern

*Underline indicates dominant land use type.

Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		
Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add pedestrian/bike facility	Mixed No substantial land use impact. Not disruptive to area land use pattern.
King County NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Snohomish County NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder	Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder	Industrial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Industrial, Mixed No substantial land use impact. Not disruptive to area land use pattern.
Bothell NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - pedestrian /bike facility	Commercial, Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
21. Pedestrian/Bicycle Connections		
Renton/Tukwila NM.P&B-18	I-405/1-5 - via or around I-405/I-5 Interchange - Add pedestrian/bike facilities	Mixed No substantial land use impact. Not disruptive to area land use pattern.
Tukwila NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes	Mixed No substantial land use impact. Not disruptive to area land use pattern.
17. Planned Arterial Projects		
Bellevue R.PA-2	148 Ave. SE (SE 24 St to SE 28 St) New Southbound lane from SE 24 St to the WB I-90 on-ramp (ETP 203)	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
Bothell R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Bothell R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)	Residential No substantial land use impact. Not disruptive to area land use pattern.

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KCDOT R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)	Commercial, Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)	Residential No substantial land use impact. Not disruptive to area land use pattern.
KCDOT R.PA-10	NE 132 St Extension (132 Ave. NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)	Residential Potential substantial localized land use impact. Potential for disruptive bisection of residential area.
Kenmore/KCDOT R.PA-11 & R.HOV.53	68 Ave. NE (Simonds Rd to SR 522)--- Construct Northbound HOV lane total of 5/6 lanes (ETP 22)	Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.PA-12	124 Ave. NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with pedestrian /bike facilities (ETP R-23)	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Kirkland R.PA-13 & R.IC-26	NE 132 St (100 Ave. NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)	Residential No substantial land use impact. Not disruptive to area land use pattern.
Kirkland R.PA-14	NE 100 St (117 Ave. NE to Slater Ave.) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Newcastle R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)	Commercial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.PA-16	Redmond 148th Ave. NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;	Industrial, Open Space, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Redmond R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave. NE arterial and new 72nd St arterial w/ bike/ pedestrian and CSG; widen Bear Creek Pkwy (ETP R-110)	Mixed Potential substantial localized land use impact. Potential for disruptive bisection of mixed use area.
Redmond R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave. NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)	Industrial, Mixed, Residential Potential substantial localized land use impact. Potential impact to parks in area.
Renton R.PA-19	Duvall Ave. NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)	Mixed, Open Space, Residential No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-20	Oakesdale Ave. SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)	Commercial, Industrial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-21	Rainier Ave. / Grady Way (intersection)-- Grade separation	Commercial No substantial land use impact. Not disruptive to area land use pattern.

*Underline indicates dominant land use type.

Renton R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)	Commercial No substantial land use impact. Not disruptive to area land use pattern.
Renton R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)	Commercial Potential substantial localized land use impact. Potential for disruptive bisection of commercial area.
Woodinville R.PA-25 & R.AC.30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
Woodinville R.PA-26	SR202 Corridor Package (SR202/148th Ave. & SR202/127th Place)--- Intersection improvements (ETP R-54)	Agricultural, Residential No substantial land use impact. Not disruptive to area land use pattern. (see *I-405 Corridor Program Draft Farmland Expertise Report* [DEA, 2001])
WSDOT R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and through lane on 202 to SR 520 (ETP R-29)	Mixed, Residential No substantial land use impact. Not disruptive to area land use pattern.
WSDOT R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)	½ Mixed, ½ Residential No substantial land use impact. Not disruptive to area land use pattern.

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